HSLU Lucerne University of Applied Sciences and Arts

x28

LAC

The Applied AI Center

AI JOBS REPORT 2025

An Overview of the
AI Jobs Market in Switzerland

FH Zentralschweiz

Foreword

The origin of this Swiss AI Jobs Report is straightforward. The Applied AI Center @ HSLU has hundreds of students and researchers specializing in artificial intelligence, machine learning, data science and related technologies. Where can they find jobs once they graduate? This report, now in its second edition, should help answer that question.

What we are seeing is that the jobs market is highly dynamic. We know from the big-picture news that 2025 has been a tough year for tech jobs in Switzerland, with entry-level jobs in software engineering and IT being particularly hard hit. Obvious headwinds for investments include uncertainty around US tariffs as well as the narrative around AI-powered “vibe-coding” reducing the need for tech talent.

However, when we zoom in, the picture is more nuanced. Certainly, there are many good jobs out there in the field of AI. Competition to secure them is fierce, and candidates need to bring a wider array of skills and adaptability to the table than was previously required. But the fact is that Switzerland is a recognized and leading global player in AI. Big tech companies like OpenAI, Microsoft, and Google are all building significant AI research capabilities here. There is a burgeoning AI startup scene. And the SME champions of Switzerland are also slowly making progress on their AI journey, perhaps with a focus more on internal productivity than revolutionizing their products and services.

You will find this reflected in our report. Thanks to our valued data partner, x28, as well as great insights from our nonprofit industry association, the Local AI Community, you will find in these pages an in-depth, data-driven study of the AI jobs market in Switzerland. We hope you find it helpful. And we also hope that if you have a need for talent that is highly specialized in data-driven technologies, and artificial intelligence, you will knock on our door at the Applied AI Center @ HSLU.

Prof. Dr. Donnacha Daly
Head of Studies in Artificial Intelligence and Machine Learning
Co-Founder of the Applied AI Center @ HSLU

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I. Introduction

Introduction

As artificial intelligence (AI) rapidly reshapes industries across Switzerland in 2025, it presents a landscape of both significant opportunity and unprecedented challenge. The technology job market is facing significant disruption, as reported by the Tages-Anzeiger, which highlights a 31% decline in traditional IT job openings[1]. This disruption is particularly acute at the entry level, making it harder for new professionals to gain foundational experience.

However, this is not a collapse, but a profound realignment toward a new, AI-powered economy. While some roles are being displaced, new and different roles are being created[2]. The PwC 2025 AI Jobs Barometer reports a tenfold increase in AI-related job postings in Switzerland in recent years. Furthermore, job growth in sectors most affected by AI has surged, with roles requiring AI skills growing by over 400%[3]. The nature of the work is also shifting fundamentally, with Swiss IT News noting that over 90% of IT jobs are expected to be transformed by new fields like Agentic and Edge AI[4].

In this evolving environment, the Applied AI Center @ HSLU is an active participant in the transformation. Recognizing the gap between traditional academic offerings and the dynamic demands of the Swiss industry, the Center developed the Swiss AI Jobs Report as a strategic guide to navigating this new reality. By analyzing industry demands, key roles, and required competencies, the report serves two critical functions. First, it provides aspiring technology professionals with clear guidance on career paths in AI, helping them navigate their future with confidence. Second, it creates a vital feedback loop that enables the Center to refine its programs, ensuring alignment with the precise skills employers are seeking.

For industry partners, this data-driven approach helps validate their hiring practices and talent development pipelines. It also demonstrates that HSLU graduates possess the foresight and practical skills to meet the explicit needs of leading companies, as their education is shaped by the latest market demands for applied AI.

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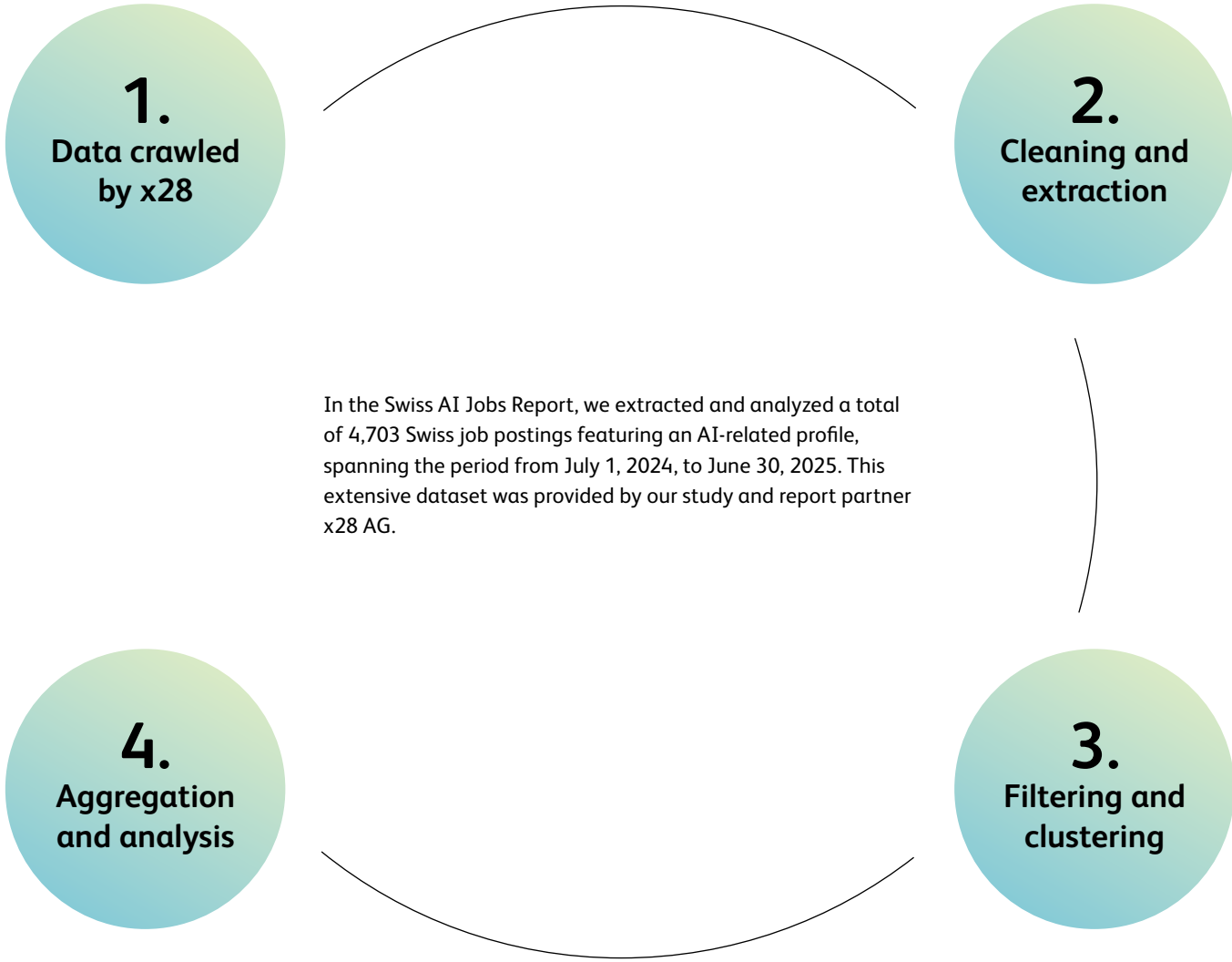
1. Nelly Keusch, Erst umworben, jetzt überflüssig? IT und KV verzeichnen starken Stellenrückgang, Tages-Anzeiger, August 23, 2025
2. Fabia Söllner, KI im Arbeitsmarkt: Chance oder Jobkiller für Junge?, Nau.ch, August 28, 2025
3. PwC Switzerland, 2025 AI Jobs Barometer, PwC Switzerland, April 6, 2025
4. Swiss IT Magazine, Viel weniger offene IT-Stellen in der Schweiz, Swiss IT Magazine, July 21, 2025

II.
Study Design

Study Design

Our study is based on a quantitative analysis of 4,703 Swiss job postings provided by our partner for this project, x28 AG. We collected these job postings from July 1, 2024, to June 30, 2025, and utilized machine learning to extract crucial attributes from the job postings, such as required skills, used tools, required experience levels, and other relevant details. After extraction, the dataset was cleaned and filtered to ensure the most valuable insights. The job information was categorized using an unsupervised machine learning approach. The insights were then generated through rigorous aggregations and analyses performed on this structured dataset, utilizing the information extracted from the job postings and data provided by our partner x28 AG.

Our analysis treats each job posting as a distinct data point. This approach is by design, as a reposted advertisement can signify a new vacancy, a separate role, or a renewed hiring effort. Because each posting lists multiple skills and requirements, the total count of these mentions will naturally exceed the total number of job advertisements.



In the Swiss AI Jobs Report, we extracted and analyzed a total of 4,703 Swiss job postings featuring an AI-related profile, spanning the period from July 1, 2024, to June 30, 2025. This extensive dataset was provided by our study and report partner x28 AG.

Our Data Partner
x28 AG provided us with the enriched data used in this project. They specialize in the long-term collection of Swiss labor market data and have developed a globally leading skills ontology.

https://www.x28.ch/

Our Community Partner
The Local AI Community is a not-for-profit organization with the mission to ensure Central Switzerland is competitive in Artificial Intelligence. They support local businesses and organizations in generating value with AI, through independent consulting, network events and AI project matching services. LAC has been a valuable partner in this project by ensuring the voice of industry is represented in this HSLU study.

https://ai-community.ch

III. Industries and Market

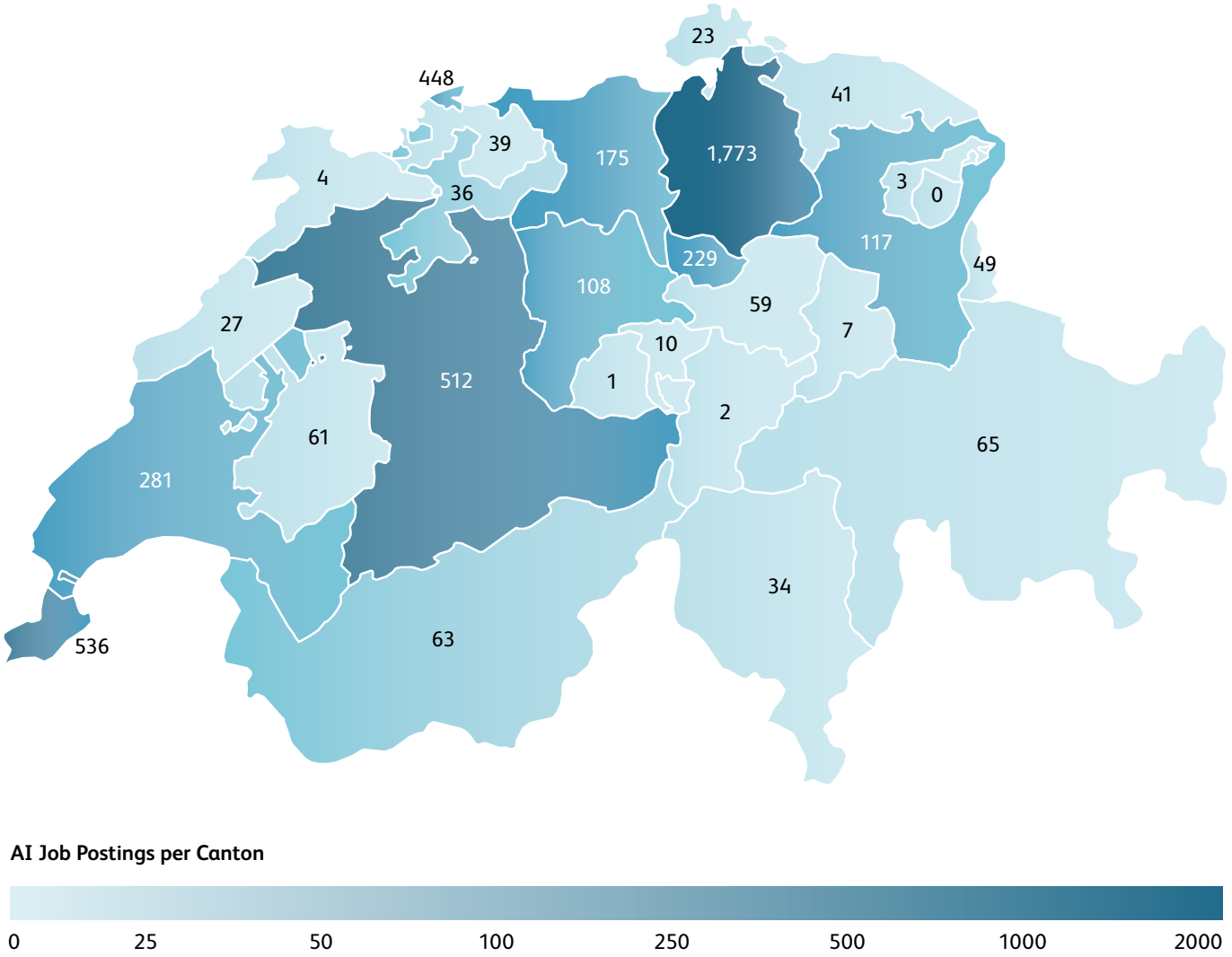
This chapter delves into the AI job market by segmenting data across various industries and geographical locations. Our analysis offers crucial insights into where AI adoption is strongest and, consequently, where the demand for AI specialists is highest. We have categorized industries using x28 AG's proprietary classification system, providing a unique and consistent lens on the market. For geographical insights, we focus on Swiss cantons and specific regions vital to HSLU students, particularly the area of Zurich and Central Switzerland, ensuring relevant local market understanding.

Readers will find a breakdown of employers, prominent roles, and essential skills per industry. This detailed information is designed to help professionals and students, especially those at HSLU, strategically design their studies and career paths by understanding the skills most sought after by leading employers in their preferred sectors. We aim to illuminate market demands and job trends, offering a clear picture of the evolving AI landscape.

Job Distribution in Switzerland

The geographical distribution of the total 4,703 AI jobs in Switzerland reveals a strong concentration in the Zurich Region, with this region alone accounting for 1,773 job postings, representing over 37% of all AI jobs nationally. Western Switzerland also plays a significant role,with a cluster in Geneva (536) and Vaud (281). Other notable cantons include Berne (512) and Basel City (448).

Central Switzerland is a key region of interest for the Applied AI Center, which is why this analysis specifically divides the data between national data and Central Switzerland / Zurich. Within Central Switzerland, Zug is the primary hub with 229 job postings. Lucerne and Schwyz follow, offering 108 and 59 postings, respectively. The remaining cantons in Central Switzerland – Nidwalden (10), Uri (2), and Obwalden (1) – have a lower number of job postings. The combined share of AI jobs in Central Switzerland and the Zurich Region amounts to 2,182, representing approximately 46% of the national total. The following chapter intentionally focuses on the area of Zurich and Central Switzerland. These areas not only represent the most interesting labor market opportunities for our graduates specializing in AI but are also the most accessible due to their proximity.



Timeline for AI Jobs

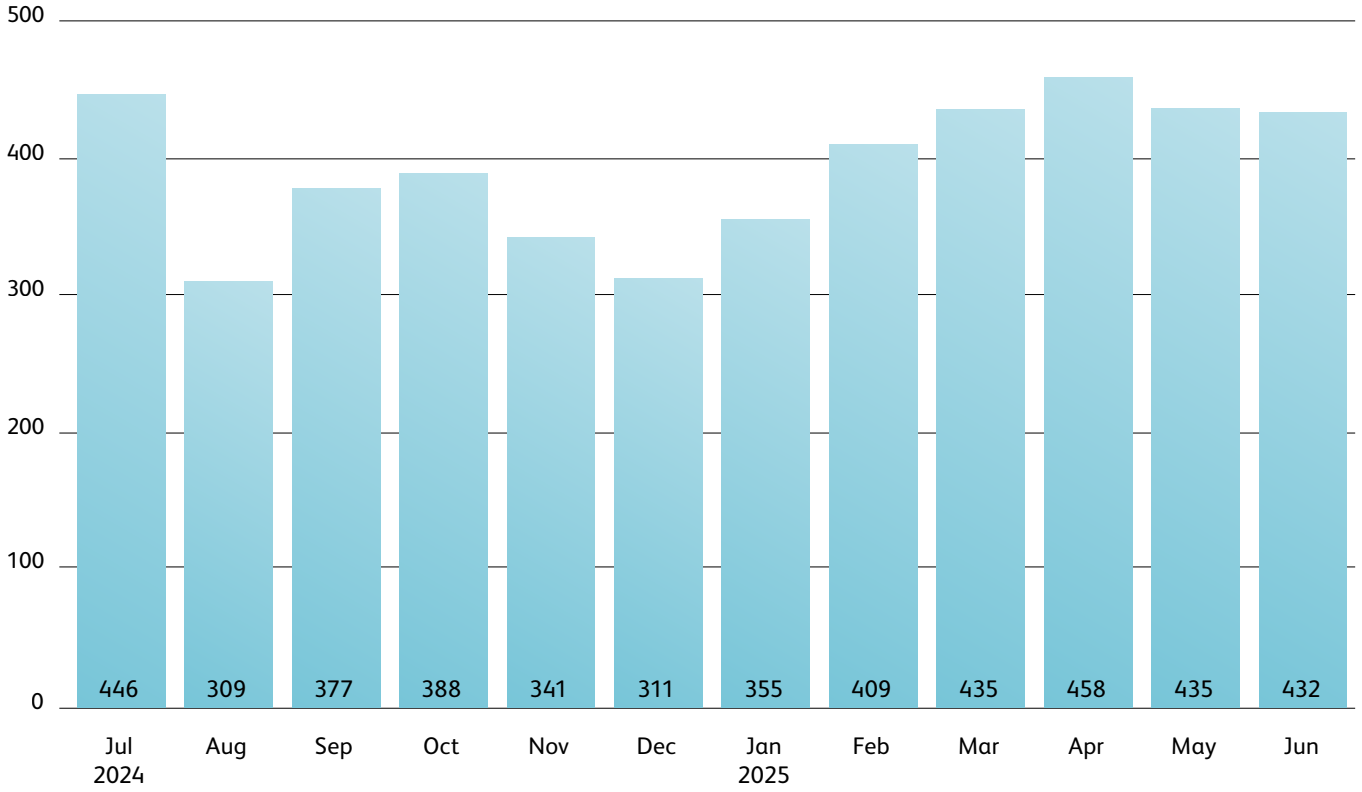
Peak Hiring Periods
Recruitment activity reached its highest point in April with 458 postings published, followed closely by July with 446 postings.

Primary Recruitment Window
The period from February to June was the most active for hiring, with total job postings consistently remaining above 400 each month.

Significant Slowdowns
The lowest levels of recruitment activity were recorded in August (309 postings) and December (311 postings).

Observed Trend
The data shows a distinct seasonal pattern. Hiring is concentrated in the spring and mid-summer, with significant declines in the late summer and at the end of the calendar year.

Job Seeker Insight
For students and recent graduates, the data indicates that the most active hiring period is between March and July. Focusing their job search and applications during these key months may increase the chances of success.



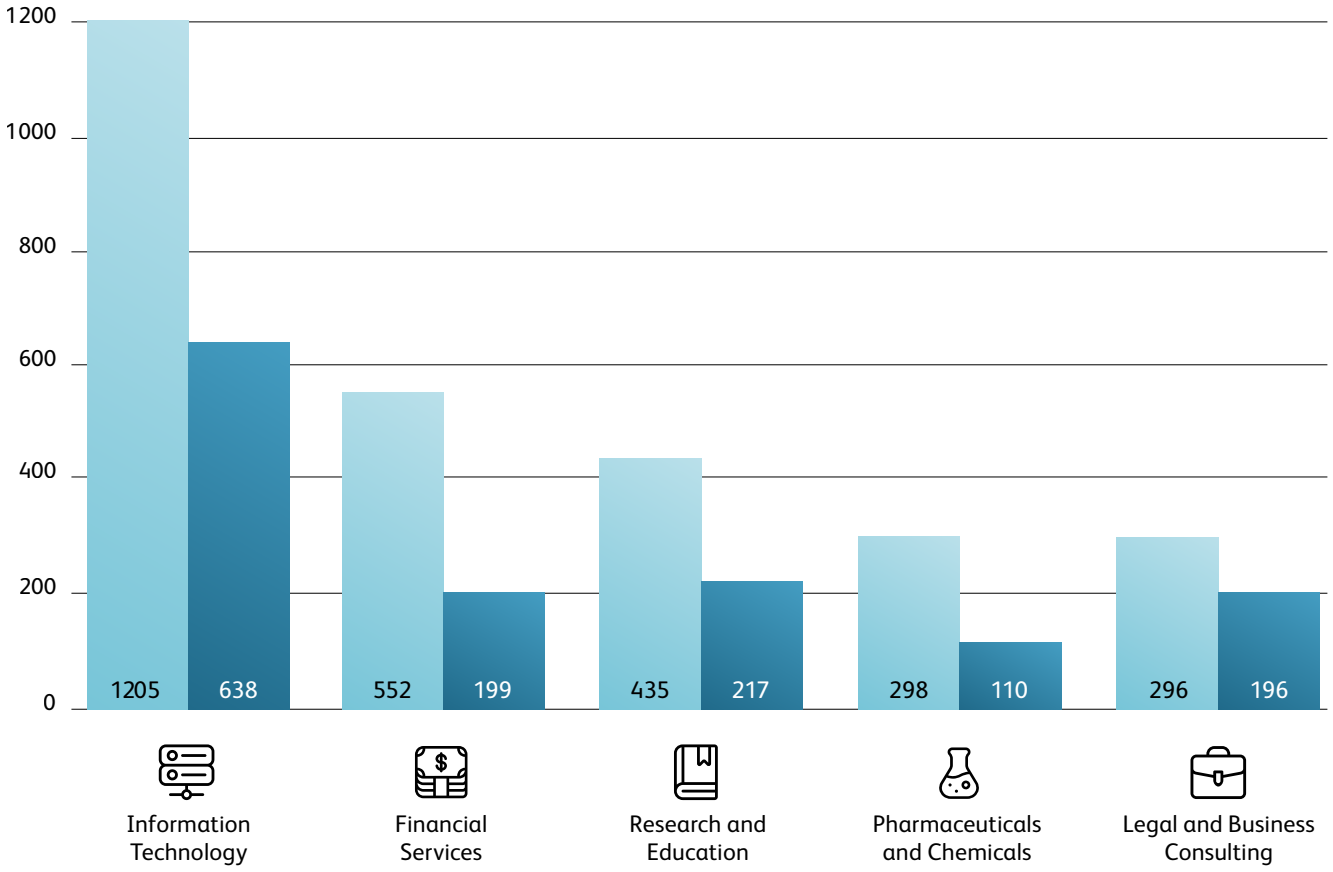
AI Job Postings by Month, July 2024 – June 2025

AI Jobs by Industry

Switzerland has a total of 4,703 AI jobs, with the area of Zurich and Central Switzerland standing out as a major employment hub. The region's AI job market is led by Information Technology (638), followed by Research and Education (217), Financial Services (199), and Legal and Business Consulting (196). Notably, these top sectors show a strong concentration; the 5 leading industries alone constitute over 60% of all analyzed AI job offerings in the region.

At the national level, Information Technology is the leading industry for AI jobs with 1,205 positions, followed by Financial Services with 552, and Research and Education with 435. Pharmaceuticals and Chemicals offer 298 jobs, while Legal and Business Consulting provides 296. Insurance is also a major employer with 252 positions. Retail (177), Public Administration (169), Electrical, Medical Engineering, and Optics (139) are other notable sectors.

Zurich and Central Switzerland are especially important for AI employment in Switzerland, as they consistently lead or are among the top regions in most key industries. This demonstrates the concentration of AI opportunities in Zurich and Central Switzerland, making these areas the focal point for both technology and knowledge-driven AI roles in the country.



Number of Job Postings in the Top 5 Sectors in Switzerland

Switzerland **Zurich and Central Switzerland**

Information Technology

1,205 Jobs Posted

In the Information Technology industry in Switzerland, there are 1,205 AI job opportunities. Companies in this sector are mainly active in international markets (563), followed by national (510) and regional markets (132).

Medium-sized companies offer the most positions with 428 jobs, while micro companies provide 294, large companies 242, and enterprise companies 241.

Python is the most frequently required programming language with 529 mentions, followed by SQL with 397, Java with 115, C++ with 84, and R with 67 occurrences. This demonstrates a strong demand for versatile programming skills in the Swiss Information Technology job market.

Top 3 Employers

54 Jobs – Microsoft Schweiz GmbH

50 Jobs – Google Switzerland GmbH

39 Jobs – ELCA Informatique SA

Top 3 Roles

223 – Data Engineer

122 – Data Scientist

110 – Consultant in AI

Top 3 Tools

174 – AWS

169 – Docker

145 – Azure

Top 3 Hard Skills

240 – Machine Learning

227 – Data Analysis

178 – Data Modeling

Financial Services

552 Jobs Posted

The Financial Services industry in Switzerland offers 552 AI jobs. Most companies in this sector operate internationally, with 377 jobs, while 133 jobs are in the national market and 42 in the regional market.

Large companies are the main employers, providing 335 positions, followed by enterprise companies with 129 jobs, medium-sized companies with 76 jobs, and micro companies with 12 jobs.

SQL is the most frequently required programming skill in this industry with 234 job postings, closely followed by Python with 201. R is required in 52 jobs, and VBA in 39 job postings.

Top 3 Employers

83 Jobs – Banque Lombard Odier & Cie SA

42 Jobs – LGT Bank AG

29 Jobs – UBS AG

Top 3 Roles

90 – Data Engineer

83 – Data Scientist

65 – Data Analyst

Top 3 Tools

67 – Tableau

53 – Oracle

48 – Power BI

Top 3 Hard Skills

156 – Data Analysis

121 – Data Modeling

88 – Data Governance

Research and Education

435 Jobs Posted

The Research and Education industry in Switzerland offers 435 AI jobs. Most employers in this sector operate nationally, with 319 jobs, while international markets account for 90 jobs and regional markets for 26 jobs. This indicates that the majority of opportunities are focused within Switzerland, with a smaller portion targeting international or regional activities.

Large employers are the primary employers in this industry, providing 196 positions, closely followed by enterprise employers with 184 jobs. Medium employers offer 40 positions and micro employers offer 15, showing that large and enterprise employers dominate the job market in this sector.

Python is the most commonly required programming language, with 223 job postings, followed by R with 59, SQL with 50, C++ with 49, and Java with 20. This demonstrates a strong demand for proficiency in Python, while other languages such as R, SQL, C++, and Java are also relevant but less prominent.

Top 3 Employers

103 Jobs – ETH Zürich

34 Jobs – École polytechnique fédérale de Lausanne, EPFL

32 Jobs – Universität Zürich

Top 3 Roles

84 – Data Scientist

75 – Researcher in AI

27 – Data Engineer

Top 3 Tools

75 – PyTorch

41 – TensorFlow

40 – Git

Top 3 Hard Skills

117 – Machine Learning

60 – Data Analysis

53 – Natural Language Processing

Pharmaceuticals and Chemicals

298 Jobs Posted

The Pharmaceuticals and Chemicals industry in Switzerland offers 298 AI jobs, with almost all positions, 295, in companies operating internationally and only 3 jobs in companies focused on the national market.

The majority of these positions are found in enterprise companies, which provide 245 jobs, while large companies offer 43, medium companies 7, and micro companies 3 jobs.

Python is the most required programming language in this sector, appearing in 162 job postings, followed by R in 71, SQL in 67, C++ in 22, and JavaScript in 13 postings. This highlights a strong focus on advanced analytics and data-driven solutions in the industry.

Top 3 Employers

77 Jobs – F. Hoffmann-La Roche AG

49 Jobs – Novartis AG

47 Jobs – Johnson & Johnson AG

Top 3 Roles

123 – Data Scientist

65 – Intern in AI

33 – Data Analyst

Top 3 Tools

40 – AWS

35 – PyTorch

31 – TensorFlow

Top 3 Hard Skills

81 – Data Analysis

66 – Machine Learning

38 – Project Management

Legal and Business Consulting

296 Jobs Posted

The Legal and Business Consulting industry in Switzerland offers 296 AI jobs. Most of these positions are in companies operating internationally, with 266 jobs, while national markets account for 22 jobs and regional markets for 8 jobs.

Enterprise companies dominate the job market in this sector with 181 positions, followed by large companies with 64, micro companies with 29, and medium companies with 22 jobs.

Python is the most required programming language with 131 occurrences, followed by SQL with 78, Java with 33, R with 32, and Scala with 15. This highlights a strong demand for advanced programming skills in the field.

Top 3 Employers

49 Jobs – KPMG AG

36 Jobs – Deloitte AG

34 Jobs – Ernst & Young AG

Top 3 Roles

62 – Consultant in AI

41 – Data Scientist

32 – Intern in AI

Top 3 Tools

48 – AWS

34 – Azure

28 – GCP

Top 3 Hard Skills

69 – Data Analysis

63 – Data Governance

56 – Data Management

Top 3 Employers

ETH Zürich

103 Jobs Posted
Mean Job Posting Duration: 37 Days

Top Job Roles

31 – Data Scientist
27 – Researcher in AI
8 – Data Engineer
5 – Data Analyst
4 – Computer Vision Engineer

Most Important Hard Skills

37 – Machine Learning
15 – Natural Language Processing
10 – Data Analysis
9 – Computer Vision
9 – Optimization

Most Used Tools

19 – PyTorch
14 – Git
14 – Docker
9 – TensorFlow
7 – GitHub

Banque Lombard Odier & Cie SA

83 Jobs Posted
Mean Job Posting Duration: 11 Days

Top Job Roles

21 – Intern in AI
17 – Data Engineer
11 – Data Scientist
3 – Machine Learning Engineer

Most Important Hard Skills

40 – Data Modeling
36 – Data Analysis
35 – Data Integration
28 – Data Quality Management
28 – Financial Planning and Analysis

Most Used Tools

29 – Excel
29 – Alteryx
29 – Tableau
28 – Microsoft Access
28 – Cognos ReportNet

F. Hoffmann-La Roche AG

77 Jobs Posted
Mean Job Posting Duration: 24 Days

Top Job Roles

30 – Intern in AI
30 – Data Scientist
10 – Data Engineer
10 – Data Analyst
3 – Machine Learning Engineer

Most Important Hard Skills

24 – Data Analysis
21 – Machine Learning
12 – Data Science
11 – Data Visualization
11 – Deep Learning

Most Used Tools

13 – PyTorch
13 – AWS
10 – TensorFlow
9 – Snowflake
9 – Azure

IV.
AI Job Roles

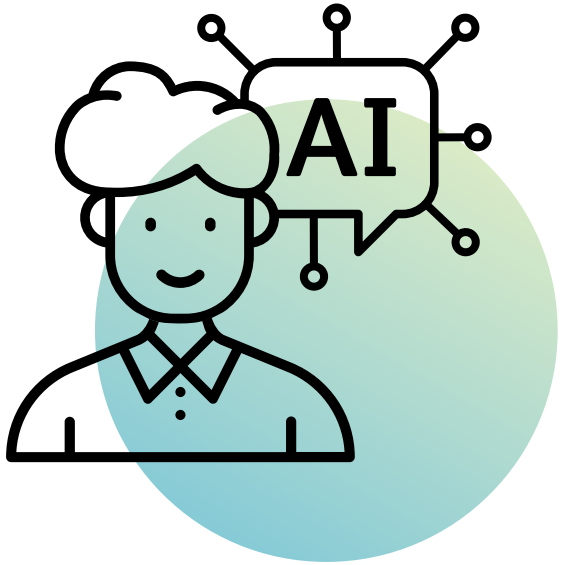
In the following chapter, we present the most relevant AI-related job roles identified through our analysis. These roles represent the key areas where the demand for AI talent is currently the strongest. Specifically, we will highlight and examine the following positions: Intern in AI, Data Engineer, Data Scientist, Machine Learning Engineer, Data Analyst, and Researcher in AI.

These six roles combined account for 2,774 positions, representing a significant portion—approximately 59% of the 4,703 total jobs analyzed in our dataset. By focusing on these key roles, we provide a clear picture of the core AI job market, while acknowledging that other specialized positions make up the remainder.

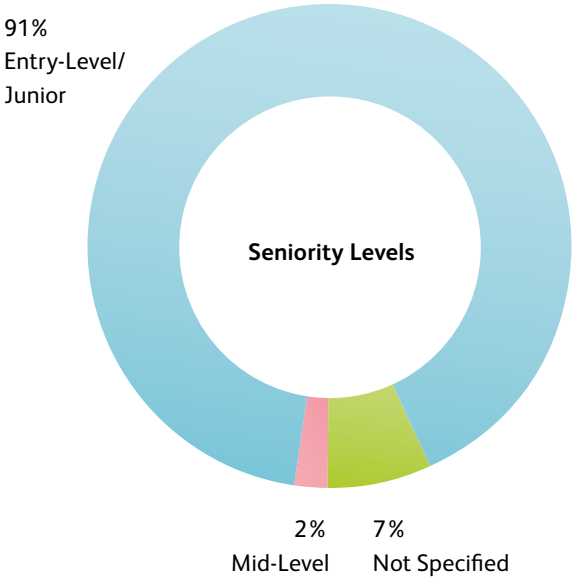
For each role, we will provide a detailed overview of the required soft skills, hard skills, programming skills, and languages most mentioned in job postings. Additionally, we will show in which industries these roles are most frequently found and outline the typical minimum degree requirements specified by employers. This analysis offers a view of the expectations placed on AI professionals entering the workforce.

Intern in AI

👪 398 Jobs Posted
Mean Job Posting Duration: 30 Days



An Intern in AI can expect to work in a dynamic environment where learning and growth are central. Typical tasks include supporting data-driven projects, assisting with the development and evaluation of machine learning models, and contributing to research or product teams. The role involves close collaboration with colleagues from diverse backgrounds and requires a proactive approach to problem-solving. Interns are encouraged to share ideas and communicate findings clearly, while adapting quickly to new challenges and tools, which is essential in this fast-evolving field.



Employers
F. Hoffmann-La Roche AG leads in offering internships in AI in Switzerland, with 30 job postings, making it the most active employer for this role. Banque Lombard Odier & Cie SA follows with 21 postings, demonstrating strong engagement in developing young talent in the field. IBM Research GmbH is also a significant player, with 16 postings, while Swiss International Air Lines AG and ELCA Informatique SA contribute with 13 and 10 postings, respectively. These companies provide a diverse range of opportunities for those seeking practical experience in AI across different industries in Switzerland.

Education Levels
For AI internships in Switzerland, a bachelor's degree is required in 46% of cases, while a master's degree is needed in 29%. The minimum education required is not specified in 22% of postings. Doctorate and Higher Education Diploma are each required in 1% of cases.

Industries
Intern positions in AI are most frequently found in Information Technology and Pharmaceuticals and Chemicals, each with 65 postings. Financial Services offer 37 positions, Legal and Business Consulting 32, and Research and Education 25. Wholesale and Nonprofit Organizations each provide 19 roles, while Mechanical Engineering and Aviation both offer 16. Retail has 15 postings, Insurance 14, and Electrical Engineering, Medical Engineering, and Optics have 12 job postings. Several other industries offer 11 or fewer opportunities, including Energy Supply, Environmental Technology, Vehicle Maintenance, and Transport and Logistics.

Skills

Communication is required by 359 postings, adaptability by 318, teamwork by 311, and collaboration by 288, making these the most important soft skills for interns in AI in Switzerland. Problem-solving is also valued by 188 postings, followed by creativity with 115 and critical thinking with 84. For hard skills, data analysis is requested by 152 postings, machine learning by 111, and data visualization by 67, highlighting their importance for students preparing their curriculum.

Soft Skills

359 – Communication

318 – Adaptability

311 – Teamwork

288 – Collaboration

188 – Problem-solving

Hard Skills

152 – Data Analysis

111 – Machine Learning

67 – Data Visualization

43 – Statistical Analysis

43 – Natural Language Processing

Programming Languages

236 – Python

100 – SQL

54 – R

30 – Java

23 – C++

Tools

62 – PyTorch

43 – TensorFlow

42 – Power BI

35 – Git

35 – Tableau

Languages

270 – English

105 – French

102 – German

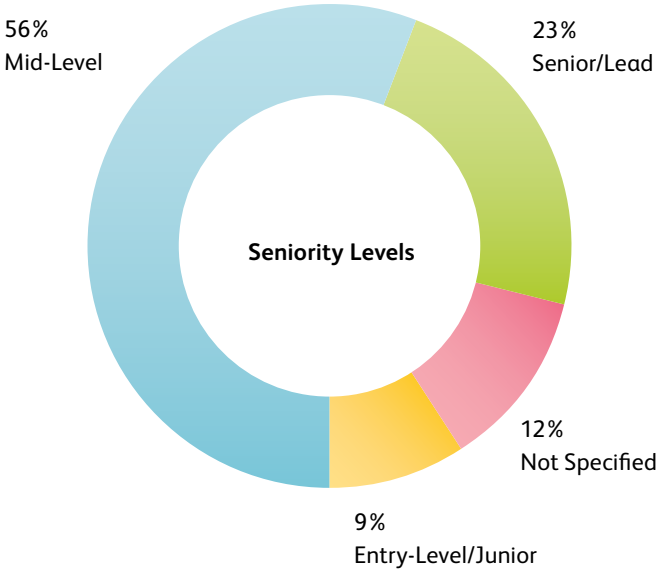
18 – Spanish

8 – Italian

Data Engineer

662 Jobs Posted
Mean Job Posting Duration: 32 Days

A Data Engineer is responsible for designing, building, and maintaining systems that collect, manage, and convert raw data into usable information for analysis. This role involves working closely with other professionals to ensure data flows efficiently and securely across platforms. Data Engineers typically handle large datasets, develop robust data pipelines, and optimize data architecture to support business needs. The position requires both technical expertise and the ability to work effectively in teams, adapting to changing requirements and solving complex challenges within dynamic environments.



Employers
Banque Lombard Odier and Galenica are the leading employers for Data Engineer roles in Switzerland, each with 17 job postings. Kiteworks Europe and F. Hoffmann-La Roche follow with 10 postings each. These companies represent strong opportunities for Data Engineers seeking to join innovative teams in banking, healthcare, technology, and pharmaceuticals. Their ongoing demand highlights the importance of data engineering across diverse Swiss industries, making them attractive destinations for professionals aiming to advance their careers in a dynamic market.

Education Levels
For Data Engineer roles in Switzerland, a bachelor's degree is required in 50% of cases. The minimum education is not specified in 33% of postings, while a master's degree is needed in 10%. Higher education diplomas are required in 5% and vocational training in 2% of cases.

Industries
Most Data Engineer positions in Switzerland are found in Information Technology with 223 postings, followed by Financial Services with 90 and Insurance with 36. Electrical and Medical Engineering, Optics offer 35 jobs, while Energy Supply provides 31. Research and Education as well as Retail each have 27 positions, and Pharmaceuticals and Chemicals together with Healthcare each offer 20. Legal and Business Consulting has 18 jobs, Wholesale 17, and Public Administration 16. Other industries each account for fewer than 15 positions.

Skills

For Data Engineer positions in Switzerland, communication is required by 597 job postings, teamwork by 537, adaptability by 529, and collaboration by 494, making these soft skills essential. Problem-solving is also important, appearing in 341 postings. Among hard skills, data modeling is listed in 209 job postings, data analysis in 155, and data engineering in 154. Aspiring technology professionals should focus on developing both strong interpersonal abilities and technical expertise in data-related processes.

Soft Skills

597 – Communication

537 – Teamwork

529 – Adaptability

494 – Collaboration

341 – Problem-solving

Hard Skills

209 – Data Modeling

155 – Data Analysis

154 – Data Engineering

111 – Data Integration

90 – Data Pipeline Development

Programming Languages

427 – SQL

408 – Python

92 – Java

57 – R

53 – Scala

Tools

109 – Azure

102 – Databricks

101 – Spark

99 – AWS

86 – Docker

Languages

399 – English

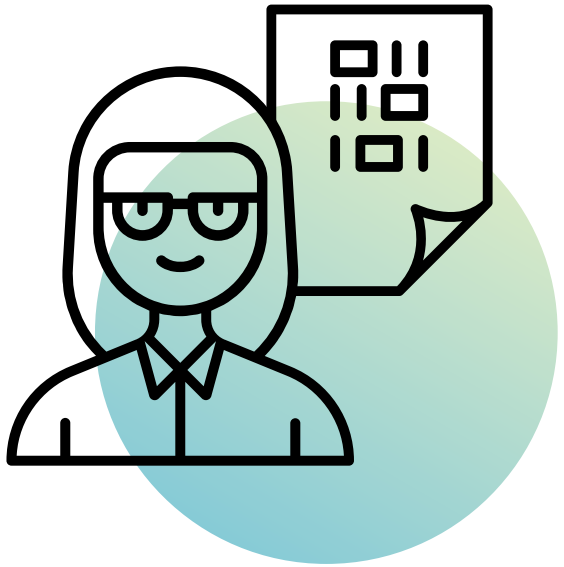
307 – German

113 – French

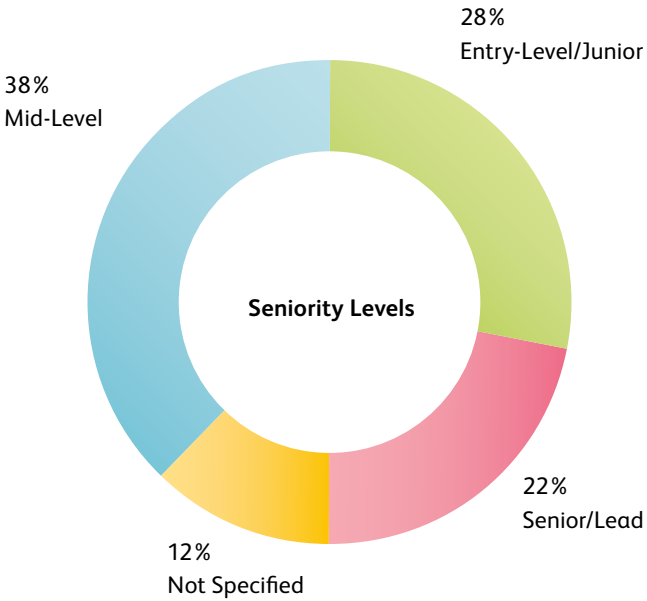
24 – Italian

Data Scientist

767 Jobs Posted
Mean Job Posting Duration: 25 Days



A Data Scientist in Switzerland typically works at the intersection of business and technology, using advanced analytical techniques to extract insights from complex datasets. The role involves designing models, interpreting results, and presenting findings to stakeholders in a clear manner. Success in this position requires strong technical expertise, the ability to work with diverse teams, and the flexibility to adapt to rapidly changing project requirements. Data Scientists are expected to contribute to strategic decisions and help organizations leverage data for improved performance and innovation.



Employers
ETH Zürich leads the Swiss market for Data Scientist roles with 31 job postings, closely followed by Novartis AG and F. Hoffmann-La Roche AG, each offering 30 opportunities. Johnson & Johnson AG is also prominent with 17 postings, while Oracle Software (Schweiz) GmbH provides 13. The strong presence of both academic and major pharmaceutical companies highlights the high demand for Data Scientists in Switzerland, with diverse opportunities across research, healthcare, and technology sectors. This environment positions Switzerland as an attractive destination for professionals seeking impactful roles in data science.

Education Levels
A bachelor's degree is required for 38% of Data Scientist positions in Switzerland, while a master's degree is needed for 31%. The minimum education level is not specified in 21% of cases. A doctorate is required for 7% and a higher education diploma for 1% of positions.

Industries
Data Scientist positions in Switzerland are most common in Pharmaceuticals and Chemicals with 123 postings, followed by Information Technology with 122, Research and Education with 84, and Financial Services with 83. Insurance offers 57 roles, Legal and Business Consulting 41, and Public Administration 39. Other sectors, such as Retail, Energy Supply, Engineering, Healthcare, Construction, and Nonprofit Organizations have fewer opportunities, with most industries offering fewer than 31 positions each. Fields like Sports, Environmental Technology, and Vehicle Manufacturing show the least demand, each with only 1 job posting.

Skills

For Data Scientist positions in Switzerland, communication is the most often required soft skill with 694 postings, followed by adaptability with 622, teamwork with 609, and collaboration with 580. Problem-solving is important with 339 postings. Technical skills like machine learning appear in 320 postings, data analysis in 269, and data science in 205. Statistical analysis is required in 141 postings, while data visualization is requested in 115. Aspiring data scientists should therefore focus on developing a balanced profile of strong interpersonal abilities and deep technical expertise.

Soft skills

694 – Communication

622 – Adaptability

609 – Teamwork

580 – Collaboration

339 – Problem-solving

Hard Skills

320 – Machine Learning

269 – Data Analysis

205 – Data Science

141 – Statistical Analysis

115 – Data Visualization

Programming Languages

537 – Python

261 – SQL

212 – R

39 – C++

32 – Java

Tools

127 – PyTorch

112 – TensorFlow

87 – AWS

73 – Git

59 – Scikit-Learn

Languages

410 – English

282 – German

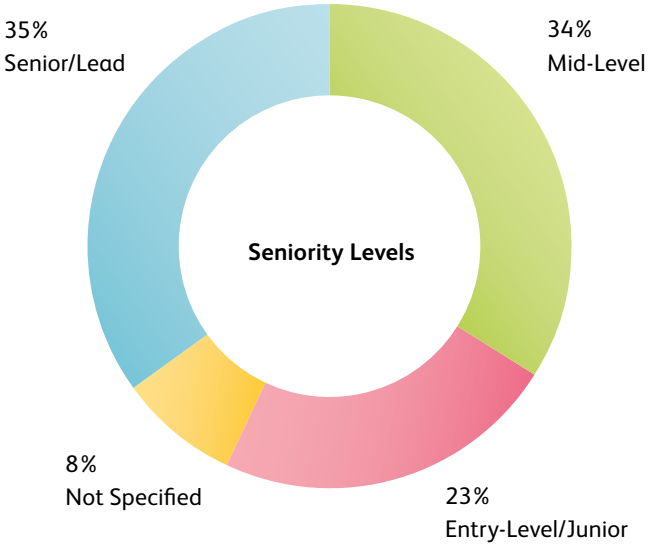
130 – French

14 – Italian

Machine Learning Engineer

181 Jobs Posted
Mean Job Posting Duration: 31 Days

A Machine Learning Engineer in Switzerland develops and implements algorithms that enable systems to learn from data and make predictions or decisions. The role involves designing models, evaluating their performance, and deploying them into production environments. Close collaboration with data scientists, engineers, and stakeholders is essential to ensure project success. Machine Learning Engineers must stay updated with the latest advancements in AI and data science, and they often work in dynamic teams where clear communication and adaptability are important for navigating complex technical challenges.



Employers
ParetoLabs leads the market for Machine Learning Engineer roles in Switzerland with 26 job postings, demonstrating significant demand for talent. Deloitte AG follows with 18 postings, highlighting its strong focus on AI innovation. Nexthink SA offers 10 postings, while AXA Versicherungen AG and Pixel Plus AG contribute 9 and 8 postings respectively. These companies offer diverse opportunities for professionals seeking to advance their careers in machine learning, reflecting a robust and competitive job market. The presence of both established firms and innovative technology companies underscores the dynamic growth of AI in the Swiss economy.

Education Levels
In Switzerland, the minimum education level for Machine Learning Engineers is most commonly a Bachelor of Science (BSc), required by 53% of job postings. A Master of Science is required by 12%, while higher education diplomas and vocational training are rarely specified. For 31% of postings, education requirements are not specified.

Industries
Machine Learning Engineer roles in Switzerland are most common in Information Technology with 98 positions. Legal and Business Consulting follows with 26, while Financial Services offers 20 and Insurance 10. Research and Education has 6 jobs. Several sectors including Mechanical Engineering, Electrical and Medical Engineering, Optics, Pharmaceuticals and Chemicals, and Wholesale each have 3. The Metal Industry has 2, while Retail, Energy Supply, Vehicle Manufacturing, Glass Industry, Marketing and Communication, Nonprofit Organization, and Publishing and Printing Industry each offer 1 position.

Skills

For Machine Learning Engineer positions in Switzerland, communication is the most requested soft skill with 166 job postings, followed by adaptability with 151, collaboration with 150, and teamwork with 146. Problem-solving is required by 112 employers. Among hard skills, machine learning is mentioned in 82 postings, AI in 47, and data science in 38. Generative artificial intelligence (GenAI), machine learning operations (MLOps), and natural language processing are also relevant but less frequently required.

Soft Skills

166 – Communication

151 – Adaptability

150 – Collaboration

146 – Teamwork

112 – Problem-solving

Hard Skills

82 – Machine Learning

47 – Artificial Intelligence

38 – Data Science

27 – Generative AI

25 – MLOps

Programming Languages

139 – Python

26 – SQL

22 – Java

20 – C++

13 – C

Tools

38 – Azure

34 – PyTorch

34 – Docker

31 – AWS

31 – Kubernetes

Languages

103 – German

97 – English

32 – French

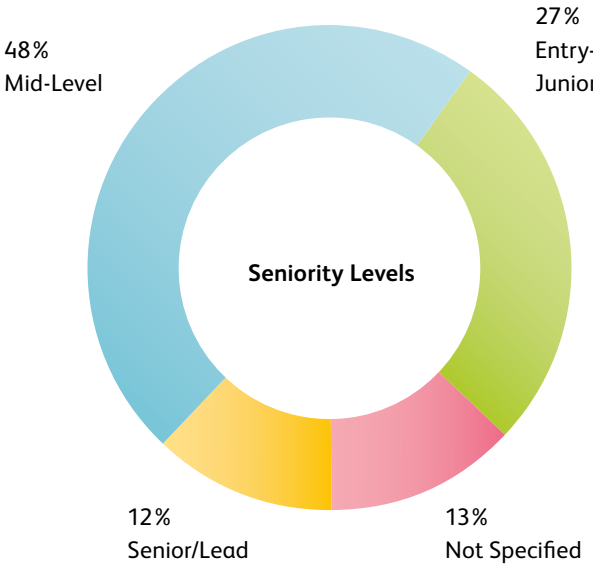
2 – Italian

1 – Spanish

Data Analyst

597 Jobs Posted
Mean Job Posting Duration: 27 Days

A Data Analyst in Switzerland transforms raw data into actionable insights for business decision-making. The role involves gathering, processing, and interpreting complex datasets, often requiring the use of specialized software and programming languages. Data Analysts work closely with colleagues from various departments to identify trends and patterns, supporting strategic planning and operational improvements. The position demands a combination of technical expertise and the ability to work effectively within a team environment, as well as the flexibility to adapt to evolving business needs and communicate findings clearly to both technical and non-technical audiences.



Employers
Swiss International Air Lines AG and F. Hoffmann-La Roche AG each offer 10 opportunities for Data Analysts, making them the leading employers in Switzerland for this role. Scintilla AG follows closely with 9, while Stadler Rheintal AG and Schweizer Radio und Fernsehen provide 8 opportunities each. These companies demonstrate strong demand for Data Analysts, reflecting a healthy job market across diverse sectors such as aviation, pharmaceuticals, manufacturing, transportation, and media. The presence of multiple leading employers highlights the broad relevance and high value placed on data analysis skills throughout the Swiss economy.

Education Levels
For Data Analyst roles in Switzerland, a Bachelor of Science degree is required in 55% of cases, while 22% do not specify an education level. Master of Science degrees are required in 14%, vocational training in 5%, and higher education diplomas in 3% of job postings.

Industries
Data Analyst positions in Switzerland are most common in Information Technology with 96 postings, followed by Financial Services with 65 and Insurance with 42. Pharmaceuticals and Chemicals offer 33 jobs, Electrical and Medical Engineering 29, Retail 27, and Research and Education 25. Other sectors such as Watches and Jewelry, Energy Supply, Nonprofit Organizations, Legal Consulting, and Aviation each provide between 20 and 23 opportunities. Less than 10 roles each are available in other sectors such as Healthcare, Sports, and Vehicle Trade, with only 1 position found in Real Estate, Furniture, and the Textile Industry.

Skills

For Data Analyst roles in Switzerland, communication is the most sought-after skill with 506 postings, followed by teamwork with 442, adaptability with 440, and collaboration with 413. Data analysis is the most important technical skill, with 349 postings, with data visualization at 186 and data modeling at 96. Problem-solving is valued in 301 postings, while critical thinking appears in 159 and creativity in 122. Aspiring professionals should focus on communication, teamwork, adaptability, data analysis, and problem-solving to align with market demands.

Soft Skills

506 – Communication

442 – Teamwork

440 – Adaptability

413 – Collaboration

301 – Problem-solving

Hard Skills

349 – Data Analysis

186 – Data Visualization

96 – Data Modeling

79 – Statistical Analysis

69 – Reporting

Programming Languages

260 – SQL

234 – Python

113 – R

26 – DAX

16 – VBA

Tools

196 – Power BI

127 – Excel

117 – Tableau

29 – SAP

27 – Databricks

Languages

328 – English

213 – German

127 – French

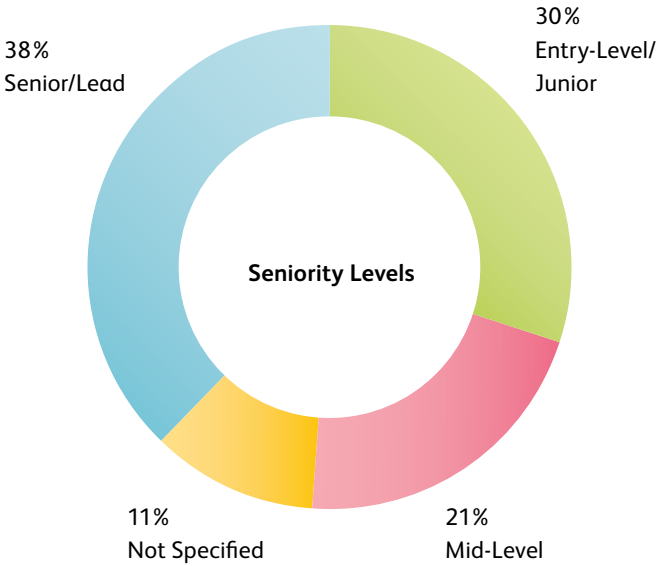
12 – Italian

4 – Spanish

Researcher in AI

169 Jobs Posted
Mean Job Posting Duration: 40 Days

A Researcher in AI is expected to explore, develop, and evaluate innovative solutions for complex problems using advanced computational methods. The role involves designing experiments, analyzing data, and generating new insights to advance the field. Collaboration with interdisciplinary teams is common, as is the need to communicate findings clearly to both technical and non-technical audiences. Adaptability and a strong analytical mindset are essential, as the field evolves rapidly. Programming and a solid understanding of AI concepts are required to succeed in this position.



Employers
ETH Zürich leads in offering opportunities for AI researchers in Switzerland with 27 job postings, making it the most active employer in this field. Huawei Technologies Switzerland AG follows with 19 postings, demonstrating a strong commitment to AI research. Google Switzerland GmbH provides 9 postings, ensuring access to global technology projects. École polytechnique fédérale de Lausanne, EPFL, supports the sector with 8 postings, while Universität Bern contributes with 7 postings. These institutions and companies represent the most significant sources of AI researcher opportunities in Switzerland, fostering a dynamic and competitive job market for talent in this area.

Education Levels
Most AI researcher positions in Switzerland require a Master of Science degree, accounting for 37% of roles, while 30% require a Doctor of Philosophy and 20% a Bachelor of Science. For 14% of jobs, the minimum education level is not specified.

Industries
Research and Education offers the most opportunities for the job role of Researcher in AI in Switzerland with 75 positions, followed by Information Technology with 59. Pharmaceuticals and Chemicals provide 9 jobs, Legal and Business Consulting 6, Electrical, Medical Engineering and Optics 4, and Public Administration and Wholesale each 3. Other sectors such as Nonprofit Organization, Financial Services, Aviation, Marketing and Communication, Mechanical Engineering, Healthcare, Food Industry, and Energy Supply each offer between 1 and 2 positions.

Skills

For a Researcher in AI in Switzerland, communication is required by 154 job postings, collaboration by 145, adaptability by 139, and teamwork by 135, making them the most important soft skills. Problem-solving is valued by 70 postings, leadership by 47, creativity and critical thinking each by 40. Independence and time management are also relevant. On the technical side, machine learning is needed by 56 postings, natural language processing by 22, artificial intelligence, data analysis, and deep learning each by 18. Statistical analysis and computer vision are mentioned in 13 postings each. Data visualization, optimization, and benchmarking are less frequently requested. Aspiring technology professionals should focus on developing strong communication, collaboration, adaptability, teamwork, and machine learning skills to align with market demands.

Soft Skills

154 – Communication

145 – Collaboration

139 – Adaptability

135 – Teamwork

70 – Problem-solving

Hard Skills

56 – Machine Learning

22 – Natural Language Processing

18 – Artificial Intelligence

18 – Data Analysis

18 – Deep Learning

Programming Languages

92 – Python

30 – R

15 – C++

12 – SQL

8 – Java

Tools

40 – PyTorch

24 – TensorFlow

8 – AWS

6 – JAX

6 – Docker

Languages

88 – English

42 – German

13 – French

3 – Italian

V.
The AI Job Race

We gathered additional insights by interviewing five tech-hiring managers in Swiss insurance, pharmaceutical, and tech consulting. They reveal a highly competitive AI job market. This report outlines how candidates can stand out by demonstrating technical depth, business sense, and genuine passion beyond academic credentials.

Key Insights for an AI Career

The Hiring Landscape: A Fast and Fierce Race

The Swiss AI jobs market is highly competitive, with roles attracting hundreds or even thousands of applications. Here‘s what to expect:

Speed is Everything: Job openings close fast, sometimes within a week. For example, a Data Engineer role received 50 applications in just three days. Candidates need to monitor job portals constantly and apply quickly.

Multi-Stage is Standard: Applicants should prepare for a rigorous, multi-stage interview process with two to four rounds, including screening, cultural/fit interviews, technical case studies, and a final team interview.

Advanced Degrees are the Norm: While a bachelor‘s degree is a good foundation, a master‘s or PhD is often the minimum for specialized roles like Data Scientist. For Data Engineering or internship roles, a bachelor‘s is often sufficient, but advanced education is a clear advantage.

What Makes a Candidate Stand Out

Recruiters want proof of a candidate‘s value through actions, mindset, and genuine interest – not just a list of skills.

Fundamentals over Frameworks: A deep understanding of the fundamentals—statistics, probability, core machine learning concepts—is prized far more than just familiarity with the latest tools like TensorFlow or PyTorch. Candidates should show employers that they understand why a solution works, not just that they can implement a library.

Passion is Tangible: A genuine interest can be demonstrated through personal projects, open-source contributions, or relevant part-time work. Recruiters look for this “intrinsic motivation.“

Business Acumen is a Differentiator: The ability to articulate how AI solves business problems is critical. A candidate can stand out by discussing customer focus, monitoring, and quality. Gaining industry knowledge, perhaps as a Data Analyst, is a powerful stepping stone.

The Application Matters: Recruiters notice the effort put into an application. Applying directly on corporate websites signals more intent than one-click platforms. A personalized cover letter is expected and makes a difference.

The Interview Process: It‘s Not Just About Code

Interviews test a wide range of abilities, with a strong emphasis on how a candidate thinks and communicates.

Show Your Work: It is crucial to articulate the thought process. Whether in a coding session, case study, or conceptual discussion, a candidate must explain their reasoning. A key guideline is: „Never stay silent for more than 20 seconds“ during a coding challenge.

Authenticity is Key: Candidates should be themselves. Being honest about personal knowledge and limitations, combined with a willingness to learn, is a much more effective strategy than trying to be the “perfect” candidate.

Prepare for Case Studies and Scenarios: Applicants should be ready for practical problems, like designing a data pipeline or discussing how they would handle a difficult stakeholder. The goal is to assess their Problem-solving approach.

Key Takeaways for the Job Search

To stand out, candidates must be proactive, prepared, and able to clearly articulate their thought process.

Be Proactive and Fast: The desired job could be gone tomorrow. Job seekers should set up alerts and be ready to apply quickly.

Build a Narrative: Go beyond coursework. Students and applicants should develop personal projects and gain practical experience to demonstrate their passion and skills.

Master the Fundamentals: Don‘t just learn tools; learn the concepts that underpin them.

Practice Thinking Aloud: It‘s helpful to simulate interview conditions and practice verbalizing their thought process as they solve problems.

Do the Homework: Research the company and understand its business. Candidates should prepare insightful questions to show they are engaged and genuinely interested.

VI.
About the Applied AI Center

The Applied AI Center at the HSLU School of Computer Science consolidates our activities in artificial intelligence across degree programs, further education and applied research. We place a strong focus on outreach, ecosystem building and industry partnership, with the goal of enabling the regional economy to maintain a competitive edge with new AI technologies. Whether it is robotics, language modelling, computer vision or data-science, the insights gained from our AI research projects are woven directly into our degree programs and further education portfolio, ensuring relevant and up-to-date curricula which reflect the changing needs of industry.

Our educational offerings include a Bachelor of Science in Artificial Intelligence & Machine Learning, a Master of Science in Engineering with a specialization in Data Science, as well as PhD opportunities facilitated through partnerships with other universities. For working professionals looking to upskill in AI, we also offer a suite of certificate in advanced studies (CAS) programs under the banner of Applied Data Intelligence. Popular examples include Machine Learning, AI Management for Business Value, Data Engineering, Data Science in Medicine & Health, and AI-driven Software Development. These modular certificates are designed to be stackable, allowing participants to build towards a Master of Advanced Studies (MAS) tailored to their career goals.

The Applied AI Center

We are the National Center of Excellence in Applied Artificial Intelligence with a core focus on Central Switzerland.

Representing Degree Programs

Prof. Sarah Hauser
Learn more

Prof. Dr. Donnacha Daly
Learn more

Representing Further Education

Prof. Dr. Umberto Michelucci
Learn more

Prof. Dr. Aygul Zagidullina
Learn more

Representing Applied Research

Prof. Dr. Alexander Denzler
Learn more

Prof. Dr. Marcel Blattner
Learn more

Representing AI Ecosystem and Services

Prof. Dr. Sita Mazumder
Learn more

Prof. Dr. Björn Jensen
Learn more

Education Pathways

Bachelor in AI and ML

HSLU offers a Bachelor of Science (BSc) in Artificial Intelligence and Machine Learning, the first of its kind at a Swiss University of Applied Sciences. This interdisciplinary program combines computer science with practical AI applications. It covers data science, natural language processing, computer vision, and robotics, alongside AI ethics and business skills. Graduates are prepared for roles like Data Scientist and AI/ML Engineer. Both full-time and part-time options are available.

Preconditions

- Technical vocational baccalaureate or equivalent qualifications.
- Potentially, preparatory courses for those with non-technical backgrounds.

Learn more

MSc Engineering – Data Science

The HSLU's Master of Science in Engineering (MSE) with a Data Science profile focuses on developing AI systems and advanced data analysis. It is a 90 ECTS program combining theory with hands-on research, including projects and a master's thesis. Students get personalized guidance and engage in research labs like the Applied AI Research Lab. The program offers both full-time (3 semesters) and part-time options, allowing flexibility for combining studies with work.

Preconditions

- A relevant bachelor's degree.
- Excellent academic performance in relevant undergraduate modules.
- The consent of an advisor to supervise the student.

Learn more

CAS in Machine Learning

The HSLU's CAS Applied Machine Learning offers hands-on ML skills. It covers model selection, data preparation, training, evaluation, and deployment. The program explores supervised, unsupervised, and deep learning techniques, including NLP and reinforcement learning, all using Python. Designed for technical specialists, project managers, and consultants, it's offered bilingually and in a hybrid format (online/Rotkreuz), serving as a potential step towards a MAS degree.

Preconditions

- Relevant professional experience.
- Familiarity with programming, particularly Python.

Learn more

Success Story

Joel Liechti

Winner, Suva Award for Best Overall Artificial Intelligence and Machine Learning Bachelor Student, 2024

Machine Learning Engineer at Suva (Swiss National Accident Insurance Fund)

Understanding data scientists' needs, how data is used, which models fit, and the ethical considerations – knowledge gained at HSLU – is crucial in my daily work.

Meet Joel Liechti, a graduate of the HSLU Bachelor of Science in Artificial Intelligence and Machine Learning. Discover how his studies provided the foundation for his current role as a Machine Learning Engineer at Suva in Lucerne, where he helps build cutting-edge machine learning solutions. His journey highlights the practical skills and strategic thinking fostered by the HSLU program. During his Bachelor in AI and Machine Learning at HSLU, Joel discovered his passion: "working at the intersection of Data Science and application development," with the aim of generating concrete benefits for users. The program's diverse lectures were key to finding this rewarding path. Transitioning into his role at Suva, Joel found his HSLU education provided a robust toolkit.

While his daily tasks as a Machine Learning Engineer differ slightly from the program's primary focus on Data Science, Joel finds the foundational knowledge he gained to be invaluable. "I can apply the acquired knowledge effectively," Joel notes, especially "understanding the needs of data scientists as we develop a Machine Learning Platform for them." Key competencies gained at HSLU that he uses include:

Understanding Data and Models: Knowing how data can be effectively used and which models are appropriate for specific tasks.

Ethical and Legal Awareness: Grasping the crucial ethical and legal considerations surrounding AI and data management.

MLOps Expertise: Finding the content from the specialized MLOps module particularly relevant for deploying and managing real-world machine learning systems.

Strong Technical Foundation: Highlighting that being an already proficient application developer with strong Python knowledge—skills emphasized during the BSc—provides a significant practical advantage.

When choosing his path after graduation, Joel looked beyond just the job description. He selected Suva based on a combination of factors: "not only because of the interesting tasks there, but also for the location [in Lucerne], the working conditions, and the development opportunities." Today, he contributes actively to building Suva's Machine Learning Platform, putting his HSLU-honed skills into practice to support data-driven innovation.

Python: "Absolutely central," Joel confirms, "reflecting its core role in AI solutions taught at HSLU and used extensively at Suva."

Containerization: Essential for modern deployment, a concept introduced during his studies.

ML and Data Workflow Tools: Practical work involves technologies such as MLFlow, Kafka, FastAPI, pgvector, and Gradio. Exposure to these or similar technologies during the program provides valuable context for the professional landscape.

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