



AI Jobs Analysis

“Know more about your career”

Supervised by

Dr. Amal Mahmoud

Team Members

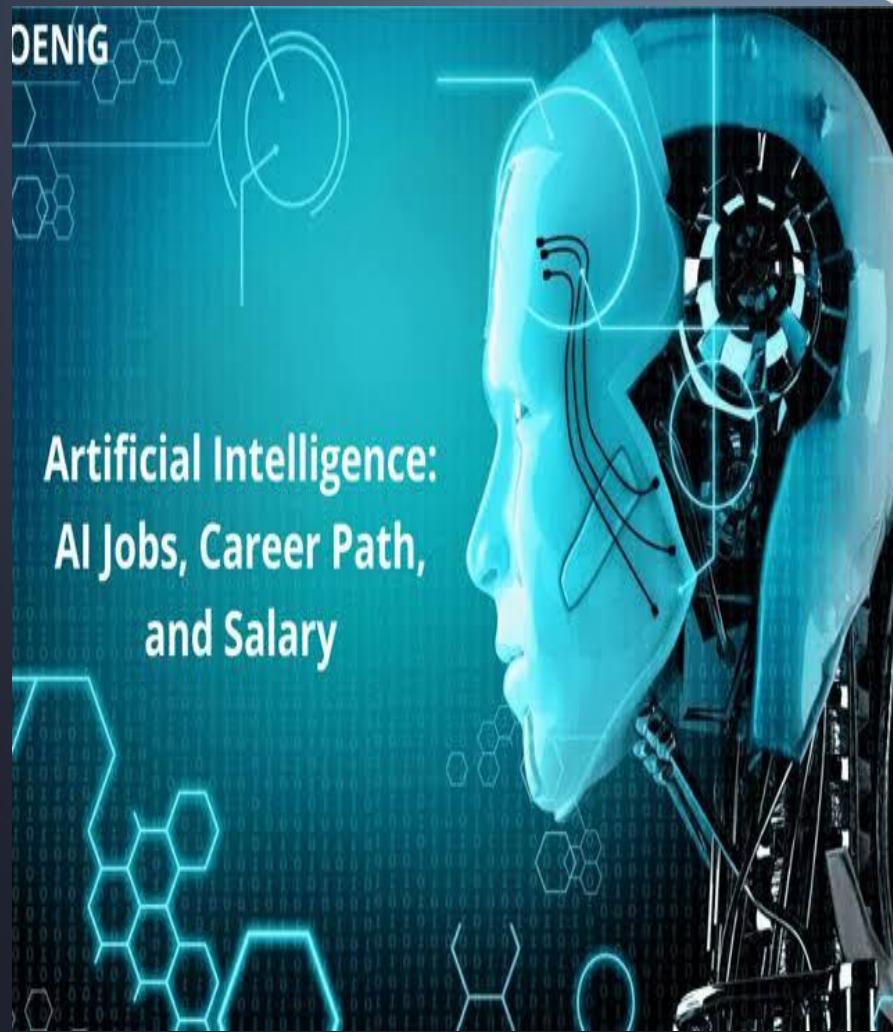
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Agenda

1. Introduction
2. Project Objectives and goals
3. Methodology
4. Key Results
5. Recommendations and Applications
6. Expected outcomes and impact
7. Conclusions

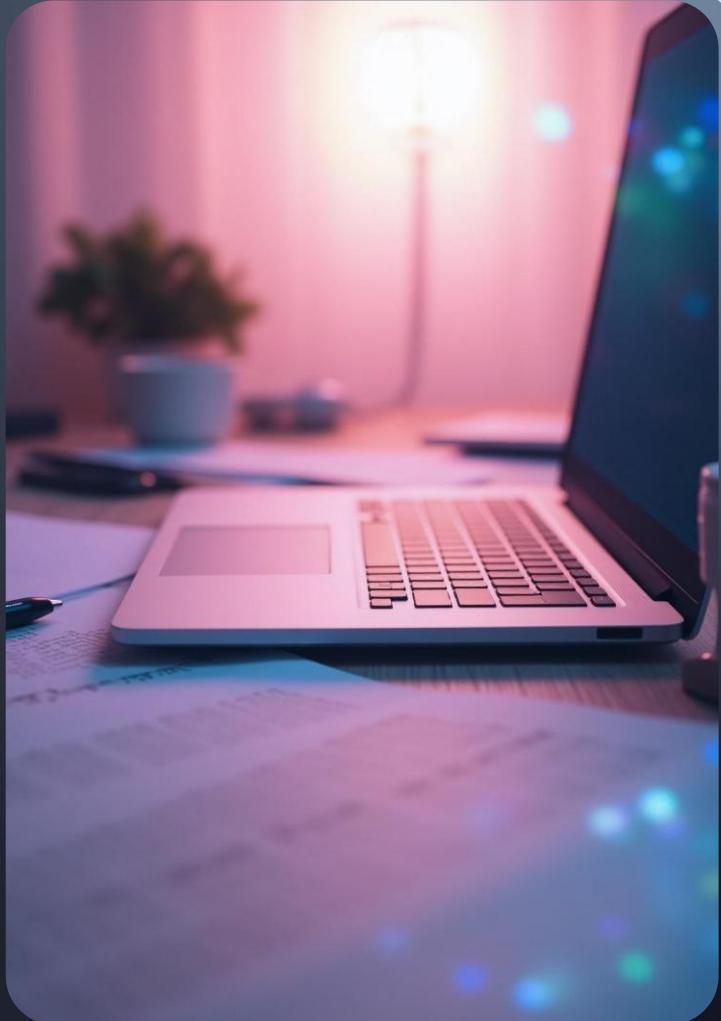
Introduction

This presentation summarizes a comprehensive analysis of the global AI job market based on 30,000 job postings. It covers key factors influencing employment trends such as salary patterns, in-demand skills, company characteristics, work modes, and experience levels. The insights aim to assist career planning and organizational strategies in the AI field.



Project objectives and goals

The project aimed to explore salary trends, identify top AI skills, understand demand across industries, and analyze how experience, company size, and remote work affect job roles. It supports informed decisions for job seekers and institutions by clarifying current AI employment dynamics.



Methodology



Dataset and scope

1	job_id	job_title	salary_usd	salary_currency	experience_level	employment_type	company_location	company_size	employee_residence	remote_ratio	required_skills	education_requir
2	AI00001	AI Research Scientist	90376	USD	SE	CT	China	M	India	50	"Tableau, PyTorch, Kubernetes, Linux"	Bachelor, 9, Automotive, 10/18/2024, 11/7/2024, 1076.5, 9, Smart Analytics
3	AI00002	AI Software Engineer	61895	USD	EN	CT	Canada	M	Ireland	100	"Deep Learning, AWS, Mathematics, Python, Docker"	Master, 1, Media, 11/20/2024, 11/1/2025, 1268.5, 2, TechCorp Inc
4	AI00003	AI Specialist	152628	USD	MI	FL	Switzerland	L	South Korea	0	"Kubernetes, Deep Learning, Java, Hadoop, NLP"	Associate, 2, Education, 3/19/2025, 4/7/2025, 1974.9, 4, Autonomous Tech
5	AI00004	NLP Engineer	80215	USD	SE	FL	India	M	India	50	"Scala, SQL, Linux, Python"	Ph.D, 7, Consulting, 12/23/2024, 2/24/2025, 1345.8, 6, Future Systems
6	AI00005	AI Consultant	54624	EUR	EN	PT	France	S	Singapore	100	"MLOps, Java, Tableau, Python"	Master, 0, Media, 4/15/2025, 8/23/2025, 1988.6, 8, Advanced Robotics
7	AI00006	AI Architect	123574	EUR	SE	CT	Germany	M	Germany	50	"Data Visualization, R, SQL, Linux"	Associate, 7, Healthcare, 8/31/2024, 10/4/2024, 819.5, 9, Neural Networks Co
8	AI00007	Principal Data Scientist	79670	GBP	MI	FL	United Kingdom	0	R	100	"Docker, MLOps"	Associate, 3, Gaming, 12/29/2024, 2/28/2025, 1930.6, 3, DataVision Ltd
9	AI00008	NLP Engineer	70640	EUR	EN	FL	France	L	France	0	"Python, SQL, Computer Vision, Java, Azure"	Master, 0, Healthcare, 6/7/2024, 7/1/2024, 1286.7, 6, Cloud AI Solutions
10	AI00009	Data Analyst	160710	USD	SE	CT	Singapore	L	Singapore	0	"Hadoop, Git, Mathematics, Python"	Ph.D, 7, Government, 11/4/2024, 11/24/2024, 551.9, 3, Quantum Computing Inc
11	AI00010	AI Software Engineer	102557	USD	SE	PT	Austria	M	Austria	0	"MLOps, GCP, Scala, Azure, Linux"	Master, 0, Government, 10/20/2024, 11/6/2024, 2340.5, 8, Cloud AI Solutions
12	AI00011	Autonomous Systems Engineer	102322	USD	SE	PT	Sweden	100	"MLOps, Python, SQL"	Associate, 8, Telecommunications, 1/29/2025, 3/5/2025, 1047.9, 9, Smart Analytics		
13	AI00012	AI Architect	115047	USD	EX	CT	South Korea	S	South Korea	0	"R, Data Visualization, Python, Azure"	Master, 0, Manufacturing, 7/18/2024, 8/19/2024, 513.6, 8, TechCorp Inc
14	AI00013	AI Consultant	124355	EUR	SE	CT	France	M	France	100	"Tableau, Python, TensorFlow"	Ph.D, 5, Automotive, 12/29/2024, 1/27/2025, 760.5, 2, Predictive Systems
15	AI00014	Autonomous Systems Engineer	887600	USD	EN	CT	Norway	S	Norway	0	"Scala, SQL, Statistics"	Master, 0, Energy, 2/11/2024, 2/25/2024, 1657.9, 1, Cloud AI Solutions
16	AI00015	AI Research Scientist	150122	USD	SE	FT	Sweden	M	Sweden	100	"PyTorch, Python, Data Visualization, GCP"	Associate, 6, Technology, 10/2/2024, 11/28/2024, 1486.9, 8, Advanced Robotics
17	AI00016	AI Product Manager	78846	GBP	EN	PT	United Kingdom	L	Israel	0	"Linux, Statistics, Deep Learning"	Ph.D, 0, Consulting, 9/28/2024, 10/28/2024, 2059.6, 0, DataVision Ltd
18	AI00017	Principal Data Scientist	59823	USD	EN	FT	India	L	India	100	"Tableau, Spark, Python, Docker"	Bachelor, 1, Real Estate, 2/6/2025, 3/26/2025, 1200.5, 8, Predictive Systems
19	AI00018	Machine Learning Engineer	181139	EUR	EX	CT	France	M	France	100	"MLOps, PyTorch, Azure"	Associate, 15, Real Estate, 4/24/2024, 6/3/2024, 2142.8, 7, AI Innovations
20	AI00019	Data Engineer	155300	USD	SE	CT	Singapore	M	Singapore	0	"Git, Hadoop, R, Python, Spark"	Associate, 9, Finance, 4/30/2024, 5/29/2024, 589.8, 6, Algorithmic Solutions
21	AI00020	Research Scientist	93851	EUR	MI	PT	Netherlands	L	Germany	100	"Java, Scala, NLP, Docker, Computer Vision"	Ph.D, 4, Transportation, 5/1/2024, 7/2/2024, 1809.8, 7, AI Innovations
22	AI00021	Data Engineer	134197	USD	MI	FT	Norway	M	France	0	"Deep Learning, AWS, Azure"	Bachelor, 3, Telecommunications, 6/21/2024, 8/28/2024, 969.9, 6, AI Innovations
23	AI00022	Autonomous Systems Engineer	102550	USD	MI	PT	United States	M	United States	0	"Tableau, Spark, NLP, TensorFlow, PyTorch"	Bachelor, 2, Automotive, 4/23/2024, 6/23/2024, 625.10, Cognitive Corp
24	AI00023	ML Ops Engineer	99382	EUR	SE	CT	Germany	M	Germany	0	"Hadoop, Git, Tableau"	Ph.D, 7, Automotive, 3/13/2025, 5/11/2025, 1629.6, 9, Quantum Computing Inc
25	AI00024	AI Product Manager	52167	USD	MI	FT	Austria	M	Ireland	100	"Git, Hadoop, Docker"	Master, 4, Telecommunications, 6/7/2024, 6/24/2024, 2298.9, 3, Cloud AI Solutions
26	AI00025	ML Ops Engineer	53923	USD	MI	FT	China	S	AWS	0	"AWS, Azure, Git, SQL, Computer Vision"	Bachelor, 2, Healthcare, 10/27/2024, 11/18/2024, 1006.7, 4, AI Innovations
27	AI00026	Robotics Engineer	109779	USD	SE	PT	Israel	L	Israel	100	"Linux, Git, Tableau, Kubernetes, Data Visualization"	Ph.D, 0, Government, 8/1/2024, 10/2/2024, 1146.8, 8, DataVision Ltd
28	AI00027	ML Ops Engineer	80979	USD	MI	FT	Australia	S	India	50	"Hadoop, Linux, Git, Scala"	Master, 2, Media, 11/18/2024, 1/18/2025, 2109.7, 7, TechCorp Inc
29	AI00028	Data Analyst	52997	USD	MI	PT	Austria	M	Singapore	0	"Mathematics, Kubernetes, TensorFlow, Tableau, PyTorch"	Ph.D, 2, Government, 1/10/2025, 2/20/2025, 2101.8, 6, Predictive Systems
30	AI00029	Head of AI	42819	USD	EN	CT	Ireland	M	Ireland	50	"Python, Scala, NLP, Mathematics, Git"	Ph.D, 0, Healthcare, 10/8/2024, 11/20/2024, 2187.8, 6, Cognitive Computing
31	AI00030	ML Ops Engineer	82083	USD	MI	CT	Israel	L	Israel	100	"Azure, Python, Computer Vision, Kubernetes, TensorFlow"	Master, 2, Retail, 1/18/2024, 2/25/2024, 1212.8, 3, Future Systems
32	AI00031	Head of AI	67488	EUR	EN	FT	Netherlands	M	Netherlands	100	"Deep Learning, GCP, AWS, Linux, Tableau"	Master, 1, Retail, 5/16/2024, 7/28/2024, 887.6, Advanced Robotics

The dataset, sourced from Kaggle, included approximately 30,000 AI-related job postings with 19 features. It covers over 20 job roles and countries, with detailed attributes such as salary, education requirements, remote work ratio, and company size.

Data preprocessing and cleaning



Data cleaning involved removing irrelevant columns and standardizing categorical values like company size and experience levels. The dataset was split into logical tables for relational analysis, ensuring clarity and efficient querying.

Analytical approach and data modeling



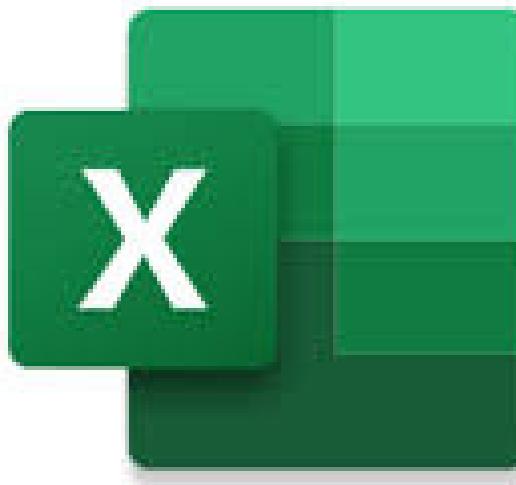
The project employed a structured data analysis process, starting with exploratory data analysis (EDA) to understand dataset structure and relationships. Business rules integrated domain knowledge to validate and interpret data realistically. The dataset was split into logical tables and linked via a star-schema model, enabling efficient multidimensional querying. Statistical techniques and visual analytics supported insight generation, with results presented through interactive dashboards.

Tools and technologies used

A combination of [Excel](#), [MySQL](#), [Python](#), [Power BI](#), and [Tableau](#) facilitated data refinement, modeling, statistical analysis, and interactive visualization. These tools ensured data quality and enabled clear communication of insights.



EXCEL



Excel Data Preprocessing

Table 1: Fact Table

Columns:

employee_id (Foreign key),

company_id (Foreign key), job_id

(Foreign key), salary,

remote_ratio, education,

years_experience, industry.

A	B	C	D	E	F	G	H	
1	company_id	employee_id	job_id	salary_usd	remote_ratio	education_required	years_experience	industry
2	Cid1	Eid1	Jid1	90376	Hybrid	Bachelor	9	Automotive
3	Cid305	Eid2	Jid1	61122	Hybrid	Associate	0	Manufacturing
4	Cid312	Eid1	Jid11	122069	Remote	PhD	6	Consulting
5	Cid235	Eid188	Jid11	168619	Remote	Bachelor	18	Automotive
6	Cid2	Eid2	Jid2	61895	Remote	Master	1	Media
7	Cid1	Eid188	Jid2	128595	Hybrid	Master	15	Telecommunications
8	Cid127	Eid188	Jid2	148214	Hybrid	Associate	19	Telecommunications
9	Cid1	Eid178	Jid13	91090	Remote	Associate	9	Telecommunications
10	Cid38	Eid36	Jid3	41430	Hybrid	Bachelor	1	Healthcare
11	Cid3	Eid3	Jid3	152626	On-Site	Associate	2	Education
12	Cid115	Eid178	Jid5	100729	Hybrid	PhD	6	Energy
13	Cid144	Eid36	Jid4	53707	Hybrid	Master	0	Healthcare
14	Cid28	Eid2	Jid16	42819	Hybrid	PhD	0	Healthcare
15	Cid122	Eid2	Jid18	47999	On-Site	PhD	0	Finance
16	Cid461	Eid2	Jid18	99041	Hybrid	Bachelor	1	Consulting
17	Cid145	Eid3	Jid7	50915	Remote	Associate	2	Retail
18	Cid185	Eid2	Jid8	48892	Remote	Bachelor	0	Consulting
19	Cid1	Eid36	Jid8	43605	On-Site	PhD	0	Gaming
20	Cid144	Eid188	Jid10	128912	Remote	Master	18	Government
21	Cid307	Eid188	Jid12	182747	Remote	Bachelor	15	Gaming
22	Cid38	Eid36	Jid14	46335	Remote	Master	1	Transportation
23	Cid322	Eid188	Jid15	91260	Hybrid	Bachelor	17	Telecommunications
24	Cid412	Eid188	Jid10	100620	Remote	Bachelor	13	Education
25	Cid4	Eid4	Jid4	80215	Hybrid	PhD	7	Consulting
26	Cid295	Eid4	Jid8	115634	Hybrid	Master	9	Retail
27	Cid436	Eid4	Jid16	137934	Hybrid	Bachelor	9	Telecommunications
28	Cid453	Eid4	Jid1	94446	On-Site	Master	9	Manufacturing
29	Cid5	Eid5	Jid5	54624	Remote	Master	0	Media
30	Cid315	Eid5	Jid4	70207	Hybrid	PhD	1	Healthcare
31	Cid48	Eid6	Jid6	129574	Hybrid	Associate	7	Healthcare

Excel Data Preprocessing

Table 2: Employee Table

Columns:

employee_id (Primary key),

experience_level,

employment_type,

employee_residence

A	B	C	D
1	employee_id	experience_level	employment_type
2	Eid1	Senior	Contract
3	Eid2	Entry	Contract
4	Eid3	Mid	Freelance
5	Eid4	Senior	Freelance
6	Eid5	Entry	Part-Time
7	Eid6	Senior	Contract
8	Eid7	Mid	Freelance
9	Eid8	Entry	Freelance
10	Eid9	Senior	Contract
11	Eid10	Senior	Part-Time
12	Eid11	Senior	Part-Time
13	Eid12	Executive	Contract
14	Eid13	Senior	Contract
15	Eid14	Entry	Contract
16	Eid15	Senior	Full-Time
17	Eid16	Entry	Part-Time
18	Eid17	Entry	Full-Time
19	Eid18	Executive	Contract
20	Eid19	Mid	Part-Time
21	Eid20	Mid	Full-Time
22	Eid21	Mid	Part-Time
23	Eid22	Mid	Full-Time
24	Eid23	Mid	Full-Time
25	Eid24	Senior	Part-Time
26	Eid25	Mid	Contract
27	Eid26	Mid	Part-Time
28	Eid27	Mid	Contract
29	Eid28	Entry	Full-Time
30	Eid29	Entry	Full-Time
31	Eid30	Senior	Full-Time

Excel Data Preprocessing

Table 3: Company Table

Columns:

company_id (Primary key),

company_name,

company_location,

company_size

A	B	C	D
1	company_id ▾ company_name ▾	company_location ▾	company_size ▾
Cid1	Smart Analytics	China	Medium
Cid2	TechCorp Inc	Canada	Medium
Cid3	Autonomous Tech	Switzerland	Large
Cid4	Future Systems	India	Medium
Cid5	Advanced Robotics	France	Small
Cid6	Neural Networks Co	Germany	Medium
Cid7	DataVision Ltd	United Kingdom	Small
Cid8	Cloud AI Solutions	France	Large
Cid9	Quantum Computing Inc	Singapore	Large
Cid10	Cloud AI Solutions	Austria	Medium
Cid11	Smart Analytics	Sweden	Medium
Cid12	TechCorp Inc	South Korea	Small
Cid13	Predictive Systems	France	Medium
Cid14	Cloud AI Solutions	Norway	Small
Cid15	Advanced Robotics	Sweden	Medium
Cid16	DataVision Ltd	United Kingdom	Large
Cid17	Predictive Systems	India	Large
Cid18	AI Innovations	France	Large
Cid19	Algorithmic Solutions	Singapore	Medium
Cid20	AI Innovations	Netherlands	Large
Cid21	AI Innovations	Norway	Medium
Cid22	Cognitive Computing	United States	Medium
Cid23	Quantum Computing Inc	Germany	Small
Cid24	AI Innovations	China	Small
Cid25	DataVision Ltd	Israel	Large
Cid26	TechCorp Inc	Australia	Small
Cid27	Predictive Systems	Austria	Medium
Cid28	Cognitive Computing	Ireland	Medium
Cid29	Future Systems	Israel	Large
Cid30	Advanced Robotics	Netherlands	Medium

Excel Data Preprocessing

Table 4: Job Table

Columns:

job_id (Primary key), job_title

A	B	C
1	job_id	job_title
2	Jid1	AI Research Scientist
3	Jid2	AI Software Engineer
4	Jid3	AI Specialist
5	Jid4	NLP Engineer
6	Jid5	AI Consultant
7	Jid6	AI Architect
8	Jid7	Principal Data Scientist
9	Jid8	Data Analyst
10	Jid9	Autonomous Systems Engineer
11	Jid10	AI Product Manager
12	Jid11	Machine Learning Engineer
13	Jid12	Data Engineer
14	Jid13	Research Scientist
15	Jid14	ML Ops Engineer
16	Jid15	Robotics Engineer
17	Jid16	Head of AI
18	Jid17	Deep Learning Engineer
19	Jid18	Data Scientist
20	Jid19	Machine Learning Researcher
21	Jid20	Computer Vision Engineer
22		
23		
24		

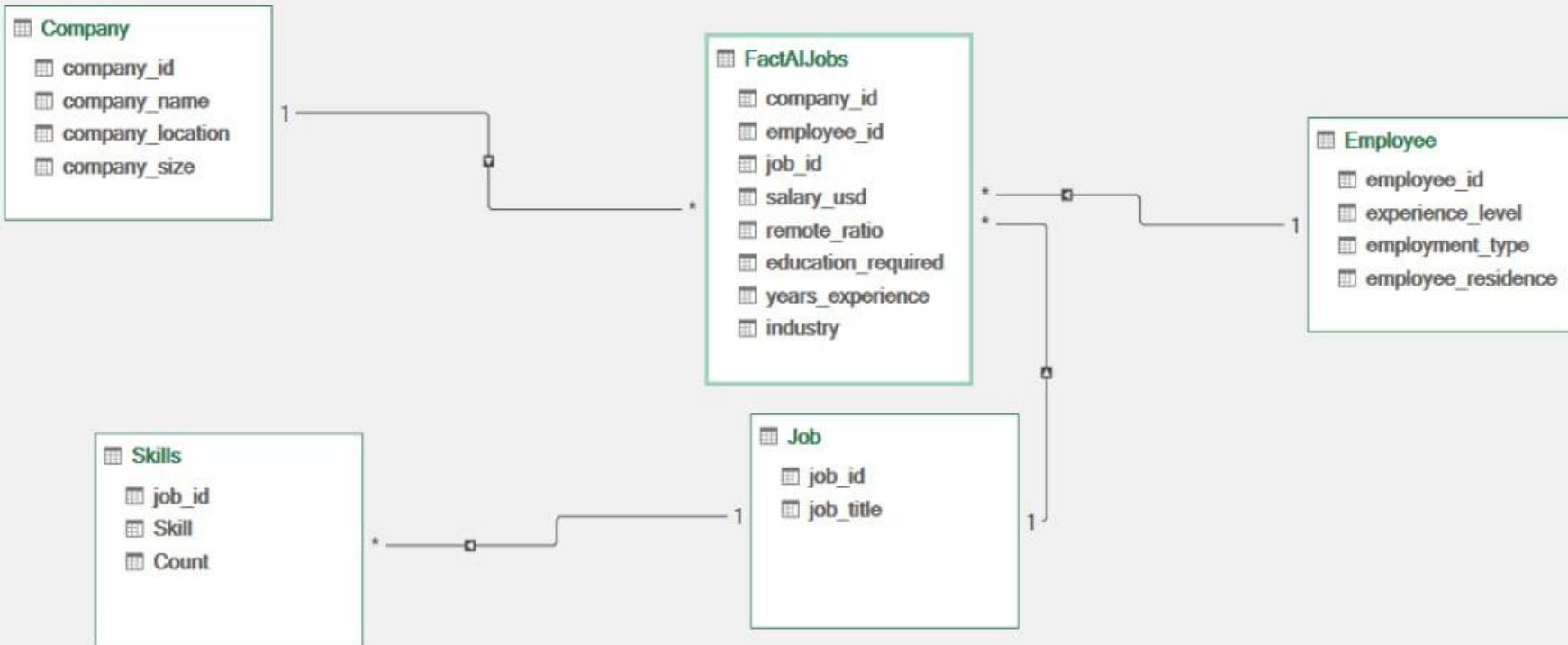
A	B	C	D	E	F
1	job_id	Skill	Count		
2	Jid18	Python	469		
3	Jid19	Python	465		
4	Jid17	Python	465		
5	Jid9	Python	460		
6	Jid12	Python	459		
7	Jid6	Python	458		
8	Jid7	Python	457		
9	Jid1	Python	455		
10	Jid20	Python	455		
11	Jid14	Python	454		
12	Jid16	Python	452		
13	Jid15	Python	451		
14	Jid10	Python	451		
15	Jid4	Python	449		
16	Jid11	Python	442		
17	Jid8	Python	439		
18	Jid2	Python	433		
19	Jid3	Python	433		
20	Jid13	Python	427		
21	Jid11	SQL	378		
22	Jid5	Python	375		
23	Jid6	SQL	367		
24	Jid9	SQL	363		
25	Jid13	SQL	360		
26	Jid4	SQL	357		
27	Jid17	SQL	351		
28	Jid14	SQL	349		
29	Jid7	SQL	349		
30	Jid12	SQL	348		
31	Jid20	SQL	345		

Columns:

job_id (Foreign key), skill,

redundance of skill for each job

Excel Data Modeling



Excel Dashboard

AI Jobs Analysis



No. Jobs

20



No. Employee

30K



No. Skills

25



No. Fields

15



No.

16

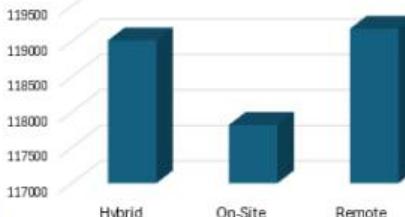


No. Countries

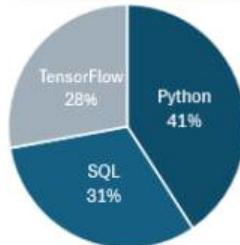
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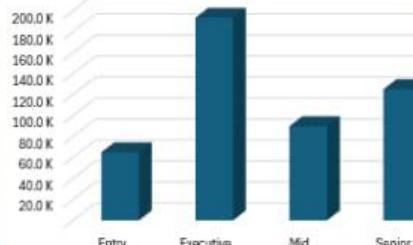
Salary by Work Mode



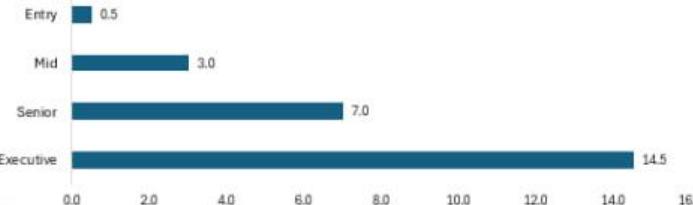
Top 3 Skills



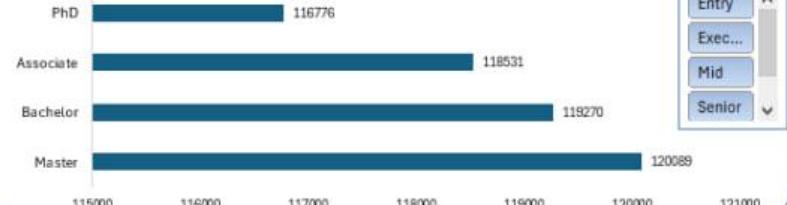
Salary by Experience



Experience by Years



Salary by Education



Entry
Exec...
Mid
Senior

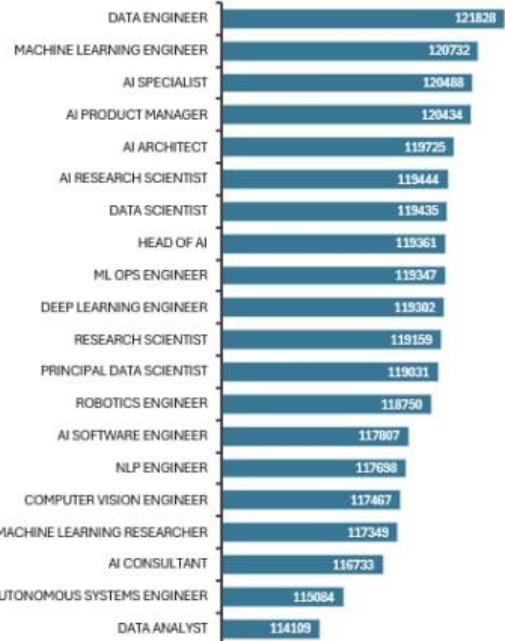
Jobs
AI Architect
AI Consultant
AI Product Manager
AI Research Scientist
AI Software Engineer
AI Specialist
Autonomous Systems Engineer
Computer Vision Engineer
Data Analyst
Data Engineer
Data Scientist
Deep Learning Engineer
Head of AI
Machine Learning Engineer
Machine Learning Researcher
ML Ops Engineer
NLP Engineer
Principal Data Scientist
Research Scientist
Robotics Engineer

Excel Dashboard

AI Jobs Analysis

Automotive	Consulting	Education	Energy	Finance
Gaming	Government	Healthcare	Manufacturing	Media
Real Estate	Retail	Technology	Telecommunications	Transportation

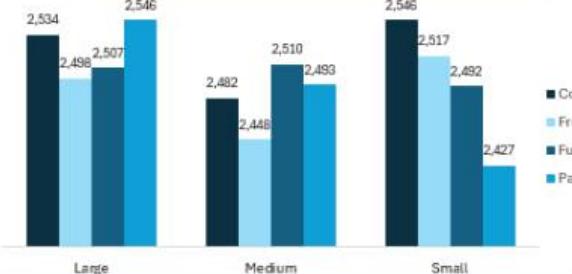
Average Salary by Job



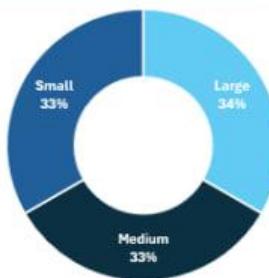
Employment Type



Employment Type by Company Size



Company Size



Average Salary by Country



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MySQL



MySQL: Data Preprocessing

This screenshot shows the MySQL Workbench interface with the 'ai_job_dataset1' tab selected. The SQL editor contains the query: `SELECT * FROM project_sql.ai_job_dataset1;`. The results grid displays eight rows of data from the dataset, which includes columns such as job_id, job_title, salary_usd, experience_level, employment_type, company_location, and company_size.

job_id	job_title	salary_usd	experience_level	employment_type	company_location	company_size
AI00001	AI Research Scientist	90376	SE	CT	China	M
AI00002	AI Software Engineer	61895	EN	CT	Canada	M
AI00003	AI Specialist	152626	MI	FL	Switzerland	L
AI00004	NLP Engineer	80215	SE	FL	India	M
AI00005	AI Consultant	54624	EN	PT	France	S
AI00006	AI Architect	123574	SE	CT	Germany	M
AI00007	Principal Data Scientist	79670	MI	FL	United Kingdom	S
AI00008	NLP Engineer	70640	EN	FL	France	L

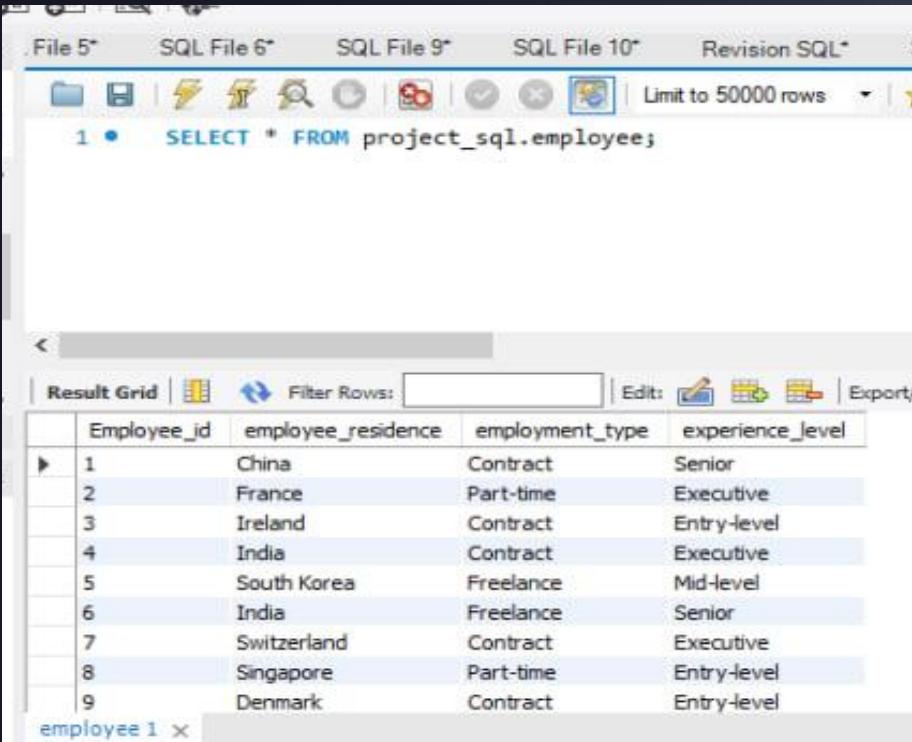
Data before processing

This screenshot shows the MySQL Workbench interface with the 'fact_job' tab selected. The SQL editor contains the query: `SELECT * FROM project_sql.fact_job;`. The results grid displays nine rows of data from the fact table, which includes columns such as company_id, employee_id, job_id, salary, remote_ratio, education_required, years_experience, and industry.

company_id	employee_id	job_id	salary	remote_ratio	education_required	years_experience	industry
1	63	19	50180	Remote	Bachelor	1	Gaming
1	63	8	43605	On-Site	PhD	0	Gaming
1	1	1	90376	Hybrid	Bachelor	9	Automotive
2	11	7	82895	Remote	Master	3	Real Estate
2	34	9	79810	Remote	Associate	3	Real Estate
2	3	2	61895	Remote	Master	1	Media
3	113	4	126242	On-Site	Master	0	Media
3	116	9	158932	Hybrid	Associate	2	Education

Fact Table

MySQL: Data Preprocessing



MySQL Workbench interface showing the results of a SELECT query on the employee table.

SQL Query:

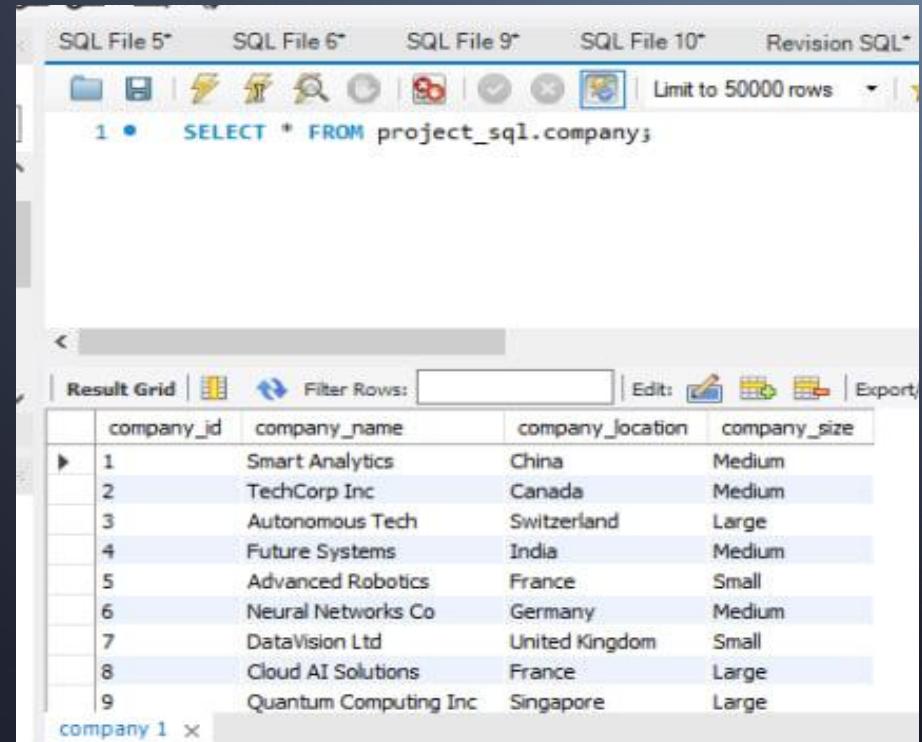
```
1 •  SELECT * FROM project_sql.employee;
```

Result Grid:

Employee_id	employee_residence	employment_type	experience_level
1	China	Contract	Senior
2	France	Part-time	Executive
3	Ireland	Contract	Entry-level
4	India	Contract	Executive
5	South Korea	Freelance	Mid-level
6	India	Freelance	Senior
7	Switzerland	Contract	Executive
8	Singapore	Part-time	Entry-level
9	Denmark	Contract	Entry-level

Employee 1 ×

Employee Table



MySQL Workbench interface showing the results of a SELECT query on the company table.

SQL Query:

```
1 •  SELECT * FROM project_sql.company;
```

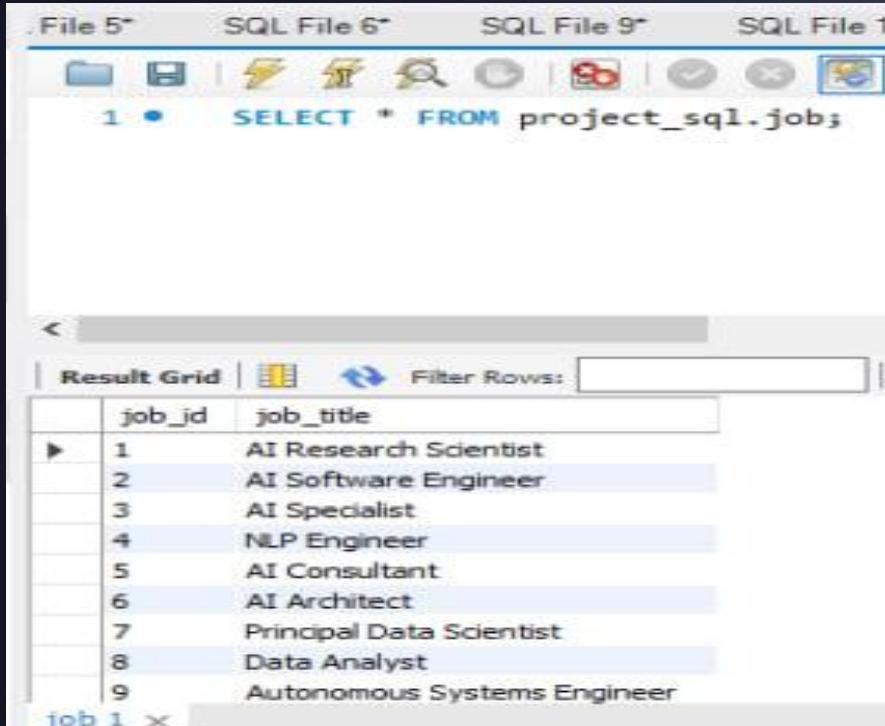
Result Grid:

company_id	company_name	company_location	company_size
1	Smart Analytics	China	Medium
2	TechCorp Inc	Canada	Medium
3	Autonomous Tech	Switzerland	Large
4	Future Systems	India	Medium
5	Advanced Robotics	France	Small
6	Neural Networks Co	Germany	Medium
7	DataVision Ltd	United Kingdom	Small
8	Cloud AI Solutions	France	Large
9	Quantum Computing Inc	Singapore	Large

company 1 ×

Company Table

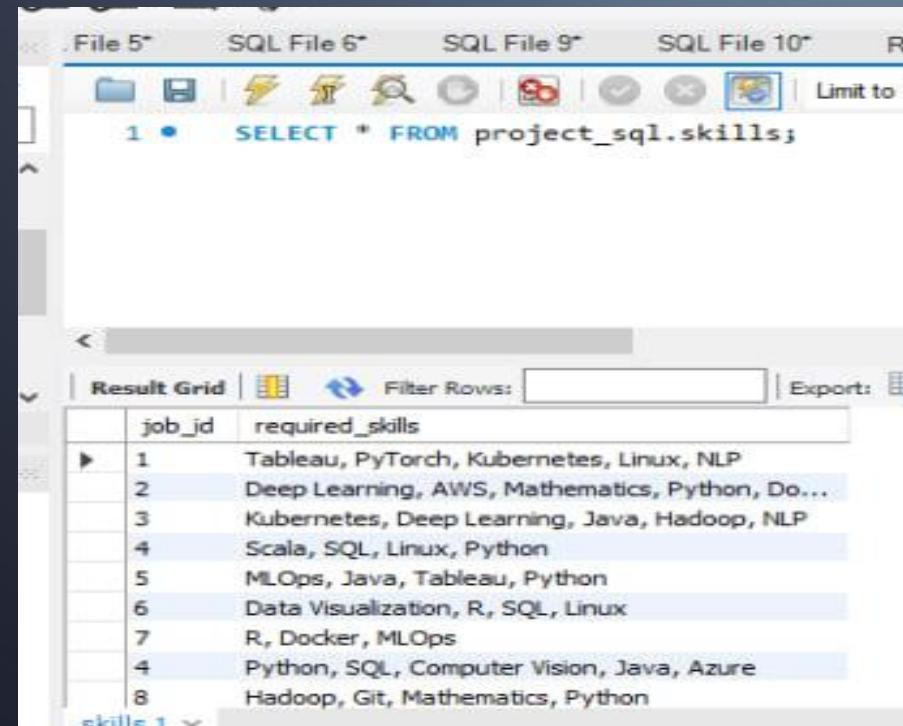
MySQL: Data Preprocessing



The screenshot shows the MySQL Workbench interface with the SQL tab selected. A query is running: `SELECT * FROM project_sql.jobs;`. The results are displayed in a grid titled "Result Grid". The columns are "job_id" and "job_title". The data includes various AI-related roles.

	job_id	job_title
▶	1	AI Research Scientist
	2	AI Software Engineer
	3	AI Specialist
	4	NLP Engineer
	5	AI Consultant
	6	AI Architect
	7	Principal Data Scientist
	8	Data Analyst
	9	Autonomous Systems Engineer

Job Table



The screenshot shows the MySQL Workbench interface with the SQL tab selected. A query is running: `SELECT * FROM project_sql.skills;`. The results are displayed in a grid titled "Result Grid". The columns are "job_id" and "required_skills". The data lists various skills required for different jobs.

	job_id	required_skills
▶	1	Tableau, PyTorch, Kubernetes, Linux, NLP
	2	Deep Learning, AWS, Mathematics, Python, Do...
	3	Kubernetes, Deep Learning, Java, Hadoop, NLP
	4	Scala, SQL, Linux, Python
	5	MLOps, Java, Tableau, Python
	6	Data Visualization, R, SQL, Linux
	7	R, Docker, MLOps
	4	Python, SQL, Computer Vision, Java, Azure
	8	Hadoop, Git, Mathematics, Python

Skills Table

MySQL: Queries

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8*

```
160 -- 1-Top requested technical AI skills across all roles
161 • WITH skill_list AS(
162     SELECT
163         job_id,
164         TRIM(substring_index(required_skills, ",", 1)) AS skill_1,
165         TRIM(substring index(substring index(required_skills, ",", 2), ",") AS skill_2)
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result 1 ×

skill	job_postings_with_skill	percent_of_jobs
Python	8949	29.83
SQL	6918	23.06
TensorFlow	6118	20.39
Kubernetes	6087	20.29
PyTorch	5608	18.69
Scala	5542	18.47
Linux	5347	17.82
Git	5122	17.07
Java	5109	17.03

Most required skills

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8*

```
192 -- 2- Average salary (USD) per role per country
193 • SELECT
194     c.company_location,
195     e.employment_type,
196     AVG(f.salary) AS Average_Salary
197     FROM fact job f
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Result 2 ×

company_location	employment_type	Average_Salary
China	Contract	70798.8650
Switzerland	Contract	168841.2243
France	Contract	113803.1470
Denmark	Contract	158063.1545
Japan	Contract	109958.4017
United Kingdom	Contract	123654.5831
Germany	Contract	123599.1940
Ireland	Contract	107085.8959
United States	Contract	144971.2880

Average salary for each role by country

MySQL: Queries

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8*

```
203 -- 3- average salary by experience level (entry, mid, senior)
204 • SELECT
205     j.job_title,
206     e.experience_level,
207     MIN(f.salary) AS Min_Salary,
208     ROUND(AVG(f.salary)) AS Average_Salary,
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

job_title	experience_level	Min_Salary	Average_Salary	Max_Salary
AI Architect	Entry-level	18309	66055	129545
AI Architect	Mid-level	27705	89489	178905
AI Architect	Senior	36919	125149	247271
AI Architect	Executive	53596	196573	398084
AI Consultant	Entry-level	18965	63869	130984
AI Consultant	Mid-level	31567	90263	164719
AI Consultant	Senior	38307	125722	231028
AI Consultant	Executive	46727	187821	378502
AI Product Manager	Entry-level	16795	64213	122403

Result 3 ×

Average salary by experience level

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8*

```
217 -- 4- Salary range (min-max) by industry
218 • SELECT industry, MIN(salary) AS MinSalary, MAX(salary) AS MaxSalary
219 FROM fact_job
220 GROUP BY 1
221 ORDER BY 1;
222 -- 5- % of AI roles that are full-time vs part-time vs freelance
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

industry	MinSalary	MaxSalary
Automotive	18481	398084
Consulting	19776	378502
Education	18220	410273
Energy	20105	381575
Finance	18052	394510
Gaming	18247	403493
Government	19877	382222
Healthcare	20088	379418
Manufacturing	16621	364585

Result 4 ×

Min and Max salary by industry

MySQL: Queries

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8* x

222 -- 5- % of AI roles that are full-time vs part-time vs freelance

223 • SELECT

224 j.job_title AS job,

225 ROUND((SUM(CASE WHEN e.employment_type = 'Full-Time' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

226 ROUND((SUM(CASE WHEN e.employment_type = 'Part-Time' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

227 ROUND((SUM(CASE WHEN e.employment_type = 'Freelance' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

job	full_time	part_time	freelance	contract
AI Architect	26.88	25.18	23.68	24.26
AI Consultant	24.42	24.42	24.91	26.25
AI Product Manager	26.81	24.82	25.08	23.29
AI Research Scientist	24.59	24.93	25.07	25.41
AI Software Engineer	25.17	24.77	25.23	24.83
AI Specialist	23.50	25.70	26.23	24.57
Autonomous Systems Engineer	25.65	24.15	23.63	26.57
Computer Vision Engineer	24.67	25.13	25.60	24.60
Data Analyst	24.98	25.39	24.31	25.32

Result 5 x Read Only

Work mode by job

SQL File 5* SQL File 6* SQL File 9* SQL File 10* Revision SQL* SQL File 8* x

236 -- 6- % of remote/hybrid AI roles vs on-site roles

237 • SELECT

238 j.job_title AS job,

239 ROUND((SUM(CASE WHEN f.remote_ratio = 'Remote' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

240 ROUND((SUM(CASE WHEN f.remote_ratio = 'Hybrid' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

241 ROUND((SUM(CASE WHEN f.remote_ratio = 'On-Site' THEN 1 ELSE 0 END) / COUNT(*))*100,2)

Result Grid | Filter Rows: [] Export: [] Wrap Cell Content: []

job	Remote	Hybrid	On_Site
AI Architect	33.42	33.16	33.42
AI Consultant	34.51	31.40	34.09
AI Product Manager	33.31	35.10	31.59
AI Research Scientist	30.74	35.34	33.92
AI Software Engineer	35.47	33.75	30.78
AI Specialist	33.75	32.49	33.75
Autonomous Systems Engineer	33.16	36.10	30.74
Computer Vision Engineer	33.51	34.77	31.72
Data Analyst	33.96	34.29	31.75

Result 6 x Read Only

Employment type by job

MySQL: Queries

The screenshot shows a MySQL Workbench interface with several tabs at the top: SQL File 5*, SQL File 6*, SQL File 9*, SQL File 10*, Revision SQL*, and SQL File 8* (highlighted in blue). Below the tabs is a toolbar with various icons. The main area displays a SQL query and its results.

```
247 -- 7- Top 5 industries by volume of AI hiring per role
248 • WITH RankedIndustries AS (
249     SELECT
250         f.job_id,
251         f.industry,
252         COUNT(CASE WHEN f.industry IS NOT NULL THEN 1 END) AS industry count,
```

The Result Grid shows the following data:

job_title	Industry_1	Industry_2	Industry_3	Industry_4	Industry_5
AI Architect	Technology	Consulting	Manufacturing	Automotive	Finance
AI Consultant	Real Estate	Gaming	Automotive	Education	Media
AI Product Manager	Consulting	Technology	Finance	Government	Retail
AI Research Scientist	Media	Finance	Government	Retail	Consulting
AI Software Engineer	Real Estate	Gaming	Consulting	Media	Finance
AI Specialist	Automotive	Manufacturing	Education	Consulting	Media
Autonomous Systems Engineer	Energy	Consulting	Healthcare	Government	Finance
Computer Vision Engineer	Real Estate	Gaming	Healthcare	Media	Telecommunications
Data Analyst	Technology	Government	Gaming	Energy	Real Estate

Result 7 x

Top 5 industries by volume of AI hiring by role

Python



Python: Raw Data Information

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File Edit View Run Kernel Settings Help Not Trusted

[2]: df = pd.read_csv('ai_job_dataset1.csv')
df.head()

[2]:

	job_id	job_title	salary_usd	salary_currency	experience_level	employment_type	company_location	company_size	employee_residence	remote_ratio	required_skills
0	AI00001	Research Scientist	90376	USD	SE	CT	China	M	China	50	Tablet PyTorch Kubernetes Linux
1	AI00002	Software Engineer	61895	USD	EN	CT	Canada	M	Ireland	100	Deep Learning TensorFlow Mathematics Python Data Structures
2	AI00003	AI Specialist	152626	USD	MI	FL	Switzerland	L	South Korea	0	Kubernetes Deep Learning Java, Hadoop
3	AI00004	NLP Engineer	80215	USD	SE	FL	India	M	India	50	Scala, Flink Linux, PyTorch
4	AI00005	AI Consultant	54624	EUR	EN	PT	France	S	Singapore	100	MLOps, Java Tablet PyTorch

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[3]: (30000, 19)

[4]: df.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 30000 entries, 0 to 29999
Data columns (total 19 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   job_id          30000 non-null   object 
 1   job_title        30000 non-null   object 
 2   salary_usd      30000 non-null   int64  
 3   salary_currency 30000 non-null   object 
 4   experience_level 30000 non-null   object 
 5   employment_type 30000 non-null   object 
 6   company_location 30000 non-null   object 
 7   company_size     30000 non-null   object 
 8   employee_residence 30000 non-null   object 
 9   remote_ratio     30000 non-null   int64  
 10  required_skills  30000 non-null   object 
 11  education_required 30000 non-null   object 
 12  years_experience 30000 non-null   int64  
 13  industry         30000 non-null   object 
 14  posting_date      30000 non-null   object 
 15  application_deadline 30000 non-null   object 
 16  job_description_length 30000 non-null   int64  
 17  benefits_score    30000 non-null   float64 
 18  company_name      30000 non-null   object 
dtypes: float64(1), int64(4), object(14)
memory usage: 4.3+ MB
```

Python: Data Cleaning

jupyter DEPI_Project-2 Last Checkpoint: 3 hours ago

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JupyterLab Python 3 (pykernel)

memory usage: 4.34 MB

```
[5]: numeric = df[['salary_usd','years_experience']]
```

```
[6]: numeric.corr()
```

```
[6]:
```

	salary_usd	years_experience
salary.usd	1.000000	0.740124
years_experience	0.740124	1.000000

```
[7]: df.drop(['salary_currency','posting_date','application_deadline','job_description_length','benefits_score'], axis = 1,inplace = True)
```

```
[8]: df.head()
```

```
[8]:
```

	job_id	job_title	salary_usd	experience_level	employment_type	company_location	company_size	employee_residence	remote_ratio	required_skills	education_r
0	AI00001	Research Scientist	90376	SE	CT	China	M	China	50	Tableau, PyTorch, Kubernetes, Linux, NLP	
1	AI00002	Software Engineer	61895	EN	CT	Canada	M	Ireland	100	Deep Learning, AWS, Mathematics, Python, Docker	

Drop unnecessary columns

jupyter DEPI_Project-2 Last Checkpoint: 4 hours ago

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JupyterLab Python 3 (pykernel)

Change Names

```
[9]: df['experience_level'] = df['experience_level'].replace(['EX','SE','MI','EN'], ['Executive','Senior','Mid-level','Entry-level'])
```

```
[10]: df['employment_type'] = df['employment_type'].replace(['CT','FT','PT','FL'], ['Contract','Full-time','Part-time','Freelance'])
```

```
[11]: df['company_size'] = df['company_size'].replace(['L','M','S'], ['Large','Medium','Small'])
```

```
[12]: df['remote_ratio'] = df['remote_ratio'].replace([0, 50, 100], ['On-Site','Hybrid','Remote'])
```

```
[13]: cols = ['experience_level','employment_type','company_size','remote_ratio']
for col in cols:
    print(df[col].value_counts())
```

```
experience_level
Executive    7603
Mid-level    7545
Senior      7482
Entry-level   7370
Name: count, dtype: int64
```

```
employment_type
Contract     7562
Full-time    7509
```

Rename columns

Python: Data After Cleaning

Jupyter DEPI_Project-2 Last Checkpoint: 4 hours ago Not Trusted

Name: count, dtype: int64

```
[14]: df.head()
```

	job_id	job_title	salary_usd	experience_level	employment_type	company_location	company_size	employee_residence	remote_ratio	required_skills	education_required	years_experience	industry	company_name
0	AI00001	AI Research Scientist	90376	Senior	Contract	China	Medium	China	Hybrid	Tableau, PyTorch, Kubernetes, Linux, NLP	Bachelor	9	Automotive	Smart Analytics
1	AI00002	AI Software Engineer	61895	Entry-level	Contract	Canada	Medium	Ireland	Remote	Deep Learning, AWS, Mathematics, Python, Docker	Master	1	Media	TechCorp Inc
2	AI00003	AI Specialist	152626	Mid-level	Freelance	Switzerland	Large	South Korea	On-Site	Kubernetes, Deep Learning, Java, Hadoop, NLP	Associate	2	Education	Autonomous Tech
3	AI00004	NLP Engineer	80215	Senior	Freelance	India	Medium	India	Hybrid	Scala, SQL, Linux, Python	PhD	7	Consulting	Future Systems
4	AI00005	AI Consultant	54624	Entry-level	Part-time	France	Small	Singapore	Remote	MLOps, Java, Tableau, Python	Master	0	Media	Advanced Robotics

Top 5 Skills per Job Title

Top Requested Technical AI Skills

Skill	Frequency
Python	8949
SQL	6918
TensorFlow	6118
Kubernetes	6087
PyTorch	5808
Scala	5542
Linux	5347
Git	5122
Java	5109
GCP	4902
Hadoop	4762
R	4657
Tableau	4654
Computer Vision	4560
Data Visualization	4544
Spark	4419
ML Ops	4309
Azure	4281
Deep Learning	4260
NLP	4223

AI Architect

Skill	Frequency
Python	456
SQL	367
Kubernetes	314
TensorFlow	298
Linux	290

AI Consultant

Skill	Frequency
Python	375
SQL	325
PyTorch	303
Kubernetes	276
TensorFlow	271

AI Product Manager

Skill	Frequency
Python	451
SQL	340
TensorFlow	311
Kubernetes	288
Linux	286

AI Research Scientist

Skill	Frequency
Python	455
Kubernetes	334
SQL	324
TensorFlow	293
PyTorch	281

AI Software Engineer

Skill	Frequency
Python	433
SQL	332
TensorFlow	326
Kubernetes	318
Scala	292

AI Specialist

Skill	Frequency
Python	433
SQL	336
TensorFlow	326
Kubernetes	306
PyTorch	298

Autonomous Systems Engineer

Skill	Frequency
Python	460
SQL	363
Kubernetes	325
TensorFlow	311
PyTorch	300

Computer Vision Engineer

Skill	Frequency
Python	455
SQL	345
TensorFlow	317
Scala	299
PyTorch	298

Data Analyst

Skill	Frequency
Python	439
SQL	342
TensorFlow	314
Kubernetes	301
Linux	299

Data Engineer

Skill	Frequency
Python	469
SQL	348
Kubernetes	330
TensorFlow	319
Scala	286

Data Scientist

Skill	Frequency
Python	469
SQL	338
Kubernetes	310
TensorFlow	304
Scala	284

Head of AI

Skill	Frequency
Python	452
SQL	342
TensorFlow	309
Kubernetes	302
Scala	279

ML Ops Engineer

Skill	Frequency
Python	454
SQL	349
TensorFlow	300
Git	276
PyTorch	250

NLP Engineer

Skill	Frequency
Python	449
SQL	367
Kubernetes	327
TensorFlow	307
PyTorch	280

Principal Data Scientist

Skill	Frequency
Python	457
SQL	349
Kubernetes	311
TensorFlow	301
Linux	250

Research Scientist

Skill	Frequency
Python	427
SQL	360
PyTorch	293
Kubernetes	279
TensorFlow	277

Robotics Engineer

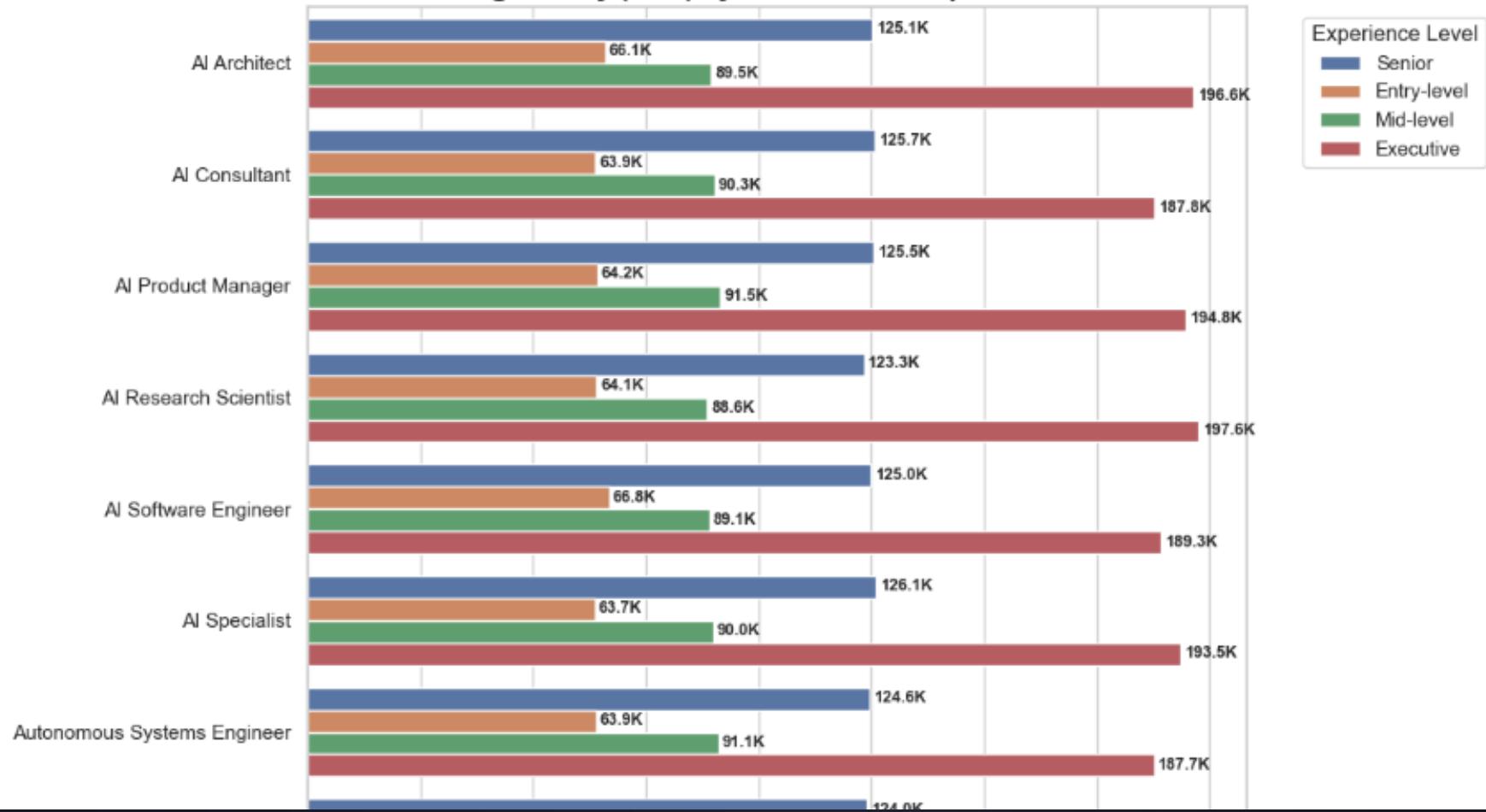
Skill	Frequency
Python	461
SQL	337
TensorFlow	305
Kubernetes	302
PyTorch	299

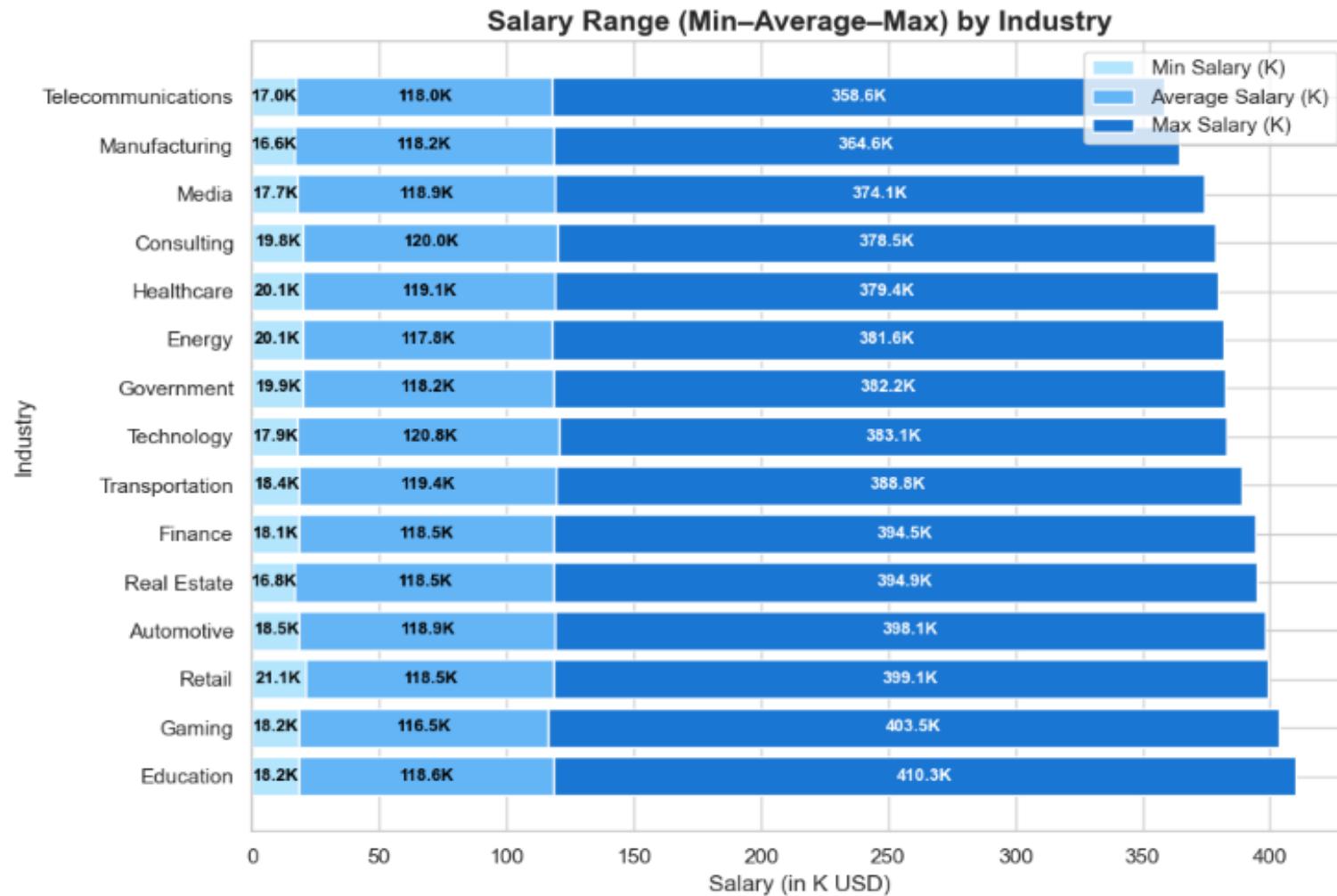
	Average Salary (USD in K) per Role per Country									
	Australia	Austria	Canada	China	Denmark	Finland	France	Germany	India	Ireland
AI Architect	129.3K	93.7K	117.1K	74.1K	158.1K	100.4K	116.7K	117.3K	59.5K	103.0K
AI Consultant	115.6K	108.1K	113.2K	70.2K	157.1K	94.9K	121.1K	117.8K	59.9K	112.3K
AI Product Manager	123.8K	99.5K	120.1K	67.3K	188.2K	109.2K	122.8K	124.7K	64.4K	111.3K
AI Research Scientist	126.8K	97.7K	110.5K	68.8K	156.6K	98.1K	117.6K	127.4K	60.5K	99.0K
AI Software Engineer	117.2K	98.5K	128.3K	73.9K	156.7K	112.1K	113.9K	116.3K	67.5K	99.7K
AI Specialist	127.9K	97.5K	120.5K	76.8K	158.8K	95.9K	113.0K	127.5K	61.7K	118.5K
Autonomous Systems Engineer	119.5K	103.7K	110.3K	71.3K	151.9K	95.4K	112.7K	116.6K	61.0K	99.5K
Computer Vision Engineer	126.2K	98.8K	116.8K	67.3K	158.8K	101.9K	103.2K	122.1K	56.9K	107.1K
Data Analyst	107.8K	91.6K	110.3K	71.4K	173.8K	99.7K	107.2K	118.7K	61.9K	98.6K
Data Engineer	120.3K	104.2K	124.1K	73.6K	159.8K	116.1K	119.4K	125.1K	66.7K	110.1K
Data Scientist	129.1K	103.0K	110.5K	71.3K	152.6K	95.1K	117.6K	120.1K	69.9K	111.8K
Deep Learning Engineer	122.5K	104.4K	114.8K	65.3K	152.2K	92.7K	105.4K	120.2K	63.7K	112.6K
Head of AI	124.9K	103.0K	104.9K	77.4K	169.9K	101.0K	110.1K	122.6K	75.7K	92.8K
ML Ops Engineer	119.9K	103.7K	103.5K	73.5K	167.5K	106.5K	112.5K	112.5K	66.8K	113.2K
Machine Learning Engineer	119.7K	100.8K	111.4K	73.9K	173.7K	103.5K	118.2K	130.8K	61.3K	99.4K
Machine Learning Researcher	126.9K	97.7K	112.9K	68.1K	155.5K	98.1K	115.7K	134.0K	68.3K	95.4K
NLP Engineer	117.5K	92.5K	108.7K	73.6K	164.6K	100.8K	117.4K	113.5K	67.7K	98.8K
Principal Data Scientist	120.0K	111.0K	116.9K	64.2K	166.0K	101.9K	120.3K	120.9K	57.6K	105.9K
Research Scientist	123.4K	101.7K	106.6K	68.9K	158.6K	107.6K	109.4K	132.8K	77.5K	105.5K
Robotics Engineer	120.3K	110.1K	118.6K	69.4K	161.1K	112.7K	119.9K	125.4K	62.9K	109.2K

Salary for each role by country

	Israel	Japan	Netherlands	Norway	Singapore	South Korea	Sweden	Switzerland	United Kingdom	United States
AI Architect	92.2K	107.3K	133.3K	168.8K	134.5K	97.4K	131.2K	169.1K	124.2K	148.0K
AI Consultant	99.1K	127.1K	123.4K	150.0K	131.0K	83.9K	116.2K	166.3K	126.2K	135.7K
AI Product Manager	98.3K	118.0K	123.5K	153.2K	119.1K	88.0K	128.3K	173.3K	127.3K	139.1K
AI Research Scientist	97.3K	103.7K	123.2K	161.5K	135.0K	100.5K	127.4K	186.5K	139.2K	136.0K
AI Software Engineer	99.2K	112.5K	120.3K	141.3K	126.7K	100.3K	141.2K	167.7K	119.7K	143.0K
AI Specialist	102.6K	109.8K	137.8K	164.9K	121.0K	93.8K	113.5K	190.8K	137.4K	148.2K
Autonomous Systems Engineer	103.6K	118.8K	120.3K	156.0K	126.3K	94.8K	111.2K	164.9K	133.9K	147.7K
Computer Vision Engineer	105.9K	115.0K	127.0K	156.3K	118.9K	95.3K	114.2K	155.9K	121.2K	166.1K
Data Analyst	93.8K	100.4K	122.8K	160.9K	125.3K	97.1K	121.3K	164.4K	121.2K	148.1K
Data Engineer	103.8K	107.9K	125.0K	175.0K	134.2K	86.5K	124.6K	171.1K	137.6K	138.9K
Data Scientist	107.4K	103.3K	121.4K	174.1K	144.5K	88.9K	128.3K	178.0K	129.1K	139.4K
Deep Learning Engineer	113.6K	105.0K	138.9K	169.6K	123.1K	86.5K	126.7K	181.8K	136.7K	140.9K
Head of AI	106.9K	115.0K	139.0K	149.9K	133.5K	94.4K	125.5K	180.4K	130.8K	146.4K
ML Ops Engineer	94.9K	104.5K	133.5K	164.0K	139.2K	95.1K	133.5K	174.1K	126.1K	139.9K
Machine Learning Engineer	108.6K	104.3K	144.3K	160.3K	133.6K	87.4K	123.0K	170.4K	136.7K	147.8K
Machine Learning Researcher	98.7K	105.6K	119.0K	152.7K	128.2K	85.9K	117.4K	182.8K	127.0K	149.7K
NLP Engineer	104.4K	108.1K	144.0K	171.3K	123.3K	95.9K	114.3K	165.8K	124.2K	145.1K
Principal Data Scientist	96.8K	104.3K	121.5K	170.8K	124.2K	86.3K	127.9K	163.9K	132.4K	135.6K
Research Scientist	103.9K	100.8K	132.3K	149.9K	130.0K	83.1K	127.0K	171.1K	132.6K	143.7K
Robotics Engineer	104.7K	109.5K	126.0K	157.7K	124.7K	95.2K	113.3K	161.3K	130.2K	145.2K

Average Salary (USD) by Job Title and Experience Level

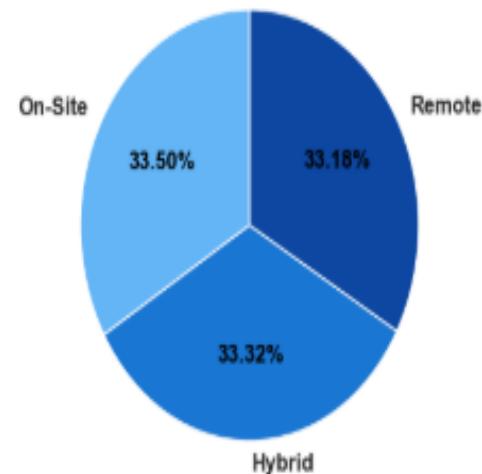




Work Mode Percentage by Job Title

Overall Work Mode Distribution

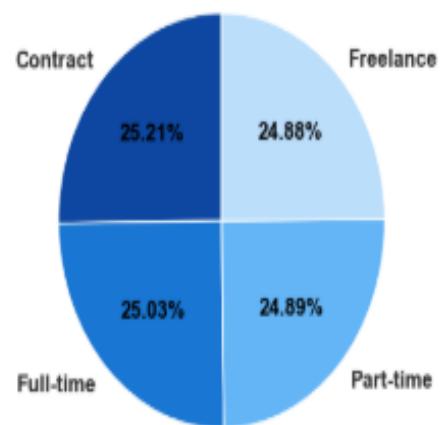
	On-Site	Hybrid	Remote
AI Architect	33.42	33.18	33.42
AI Consultant	34.09	31.4	34.51
AI Product Manager	31.59	35.1	33.31
AI Research Scientist	33.92	35.34	30.74
AI Software Engineer	30.78	33.75	35.47
AI Specialist	33.75	32.49	33.75
Autonomous Systems Engineer	30.74	36.1	33.16
Computer Vision Engineer	31.72	34.77	33.51
Data Analyst	31.75	34.29	33.96
Data Engineer	34.39	31.62	33.99
Data Scientist	33.04	32.64	34.32
Deep Learning Engineer	33.38	35.04	31.58
Head of AI	34.72	33.29	31.99
ML Ops Engineer	34.72	32.96	32.32
Machine Learning Engineer	32.71	32.71	34.59
Machine Learning Researcher	36.25	31.78	31.97
NLP Engineer	32.6	33.47	33.93
Principal Data Scientist	34.55	31.76	33.69
Research Scientist	36.86	32.32	30.82
Robotics Engineer	35.24	32.35	32.41
Total	33.5	33.32	33.18



Employment Type Percentage by Job Title

	Contract	Full-time	Part-time	Freelance
AI Architect	24.26	26.88	25.18	23.68
AI Consultant	26.25	24.42	24.42	24.91
AI Product Manager	23.29	26.81	24.82	25.08
AI Research Scientist	25.41	24.59	24.93	25.07
AI Software Engineer	24.83	25.17	24.77	25.23
AI Specialist	24.57	23.5	25.7	26.23
Autonomous Systems Engineer	26.57	25.65	24.15	23.63
Computer Vision Engineer	24.6	24.67	25.13	25.6
Data Analyst	25.32	24.98	25.39	24.31
Data Engineer	25.3	23.85	25.03	25.82
Data Scientist	25.22	24.48	27.17	23.13
Deep Learning Engineer	25.53	23.94	25.73	24.8
Head of AI	26.47	23.26	24.42	25.85
ML Ops Engineer	26.17	22.98	23.83	27.02
Machine Learning Engineer	27.32	26.32	21.99	24.37
Machine Learning Researcher	23.28	27.24	24.77	24.71
NLP Engineer	23.82	25.75	24.82	25.62
Principal Data Scientist	23.57	25.57	26.9	23.97
Research Scientist	26.82	25.12	23.9	24.17
Robotics Engineer	25.64	25.05	24.79	24.52
Total	25.21	25.03	24.89	24.88

Overall Employment Type Distribution

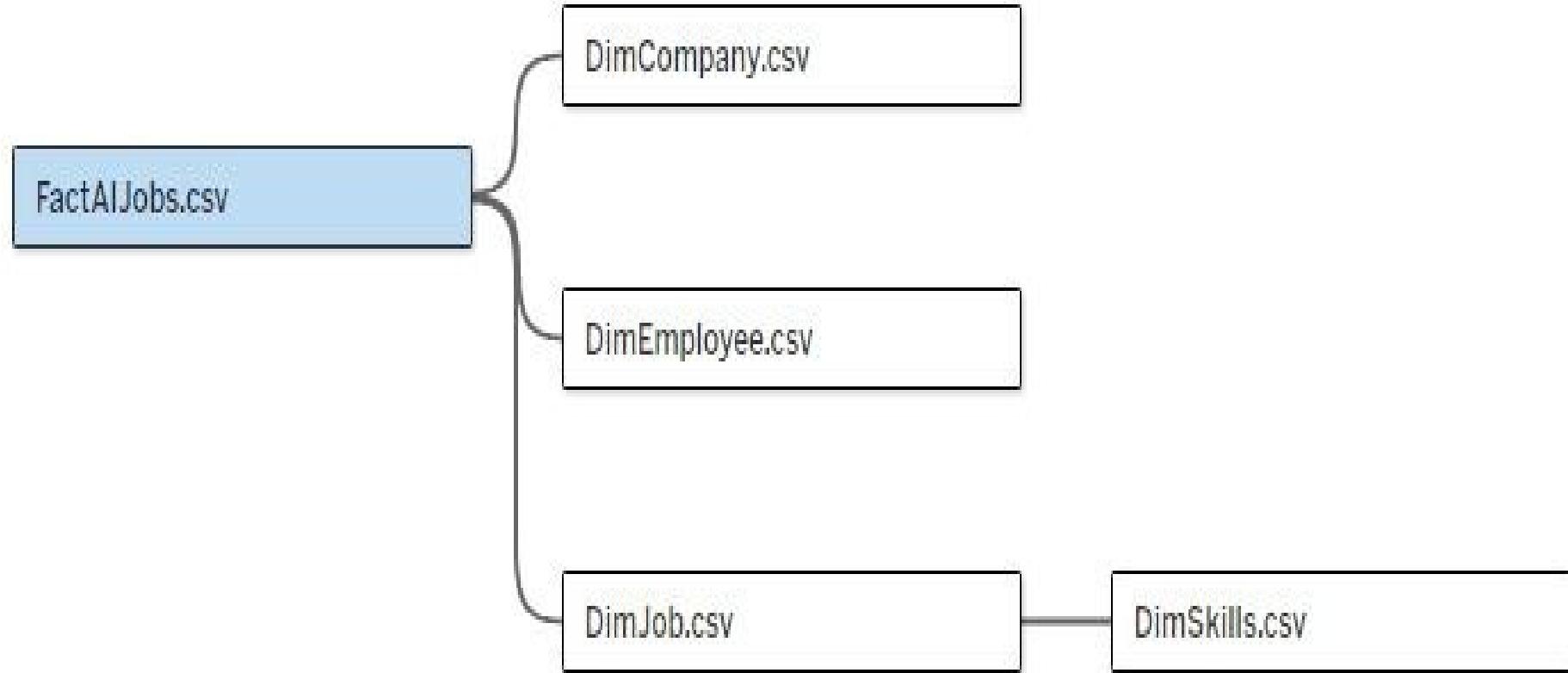


Top 5 Industries by AI Hiring Volume per Role

Job Title	#1 Industry	#2 Industry	#3 Industry	#4 Industry	#5 Industry
AI Architect	Technology	Consulting	Manufacturing	Automotive	Finance
AI Consultant	Real Estate	Automotive	Education	Gaming	Media
AI Product Manager	Consulting	Technology	Finance	Government	Retail
AI Research Scientist	Media	Finance	Government	Retail	Consulting
AI Software Engineer	Real Estate	Gaming	Consulting	Media	Finance
AI Specialist	Automotive	Manufacturing	Consulting	Education	Media
Autonomous Systems Engineer	Consulting	Energy	Healthcare	Government	Finance
Computer Vision Engineer	Real Estate	Gaming	Healthcare	Media	Telecommunications
Data Analyst	Technology	Government	Gaming	Energy	Real Estate
Data Engineer	Automotive	Manufacturing	Retail	Healthcare	Telecommunications
Data Scientist	Retail	Transportation	Telecommunications	Technology	Finance
Deep Learning Engineer	Automotive	Retail	Technology	Transportation	Energy
Head of AI	Finance	Education	Gaming	Government	Healthcare
ML Ops Engineer	Media	Automotive	Manufacturing	Telecommunications	Retail
Machine Learning Engineer	Healthcare	Education	Media	Automotive	Government
Machine Learning Researcher	Consulting	Retail	Manufacturing	Telecommunications	Education
NLP Engineer	Technology	Finance	Transportation	Automotive	Energy
Principal Data Scientist	Transportation	Real Estate	Technology	Government	Consulting
Research Scientist	Government	Real Estate	Transportation	Telecommunications	Automotive
Robotics Engineer	Media	Finance	Government	Retail	Education

Tableau

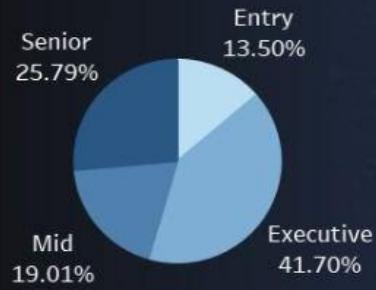




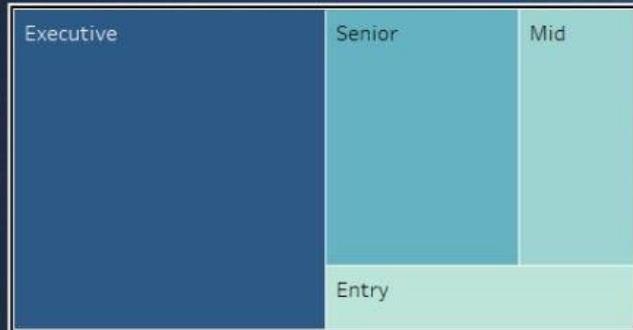


Company Location
(All)

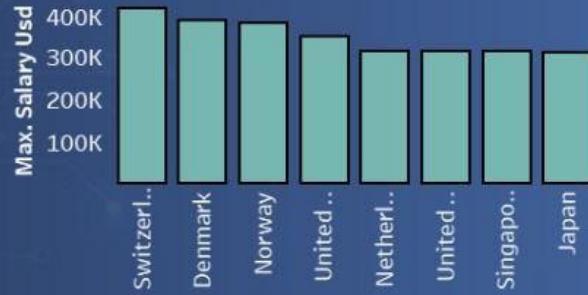
Salary by Experience Level



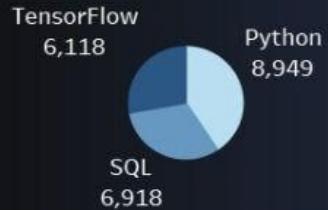
Expirience year by Experience level



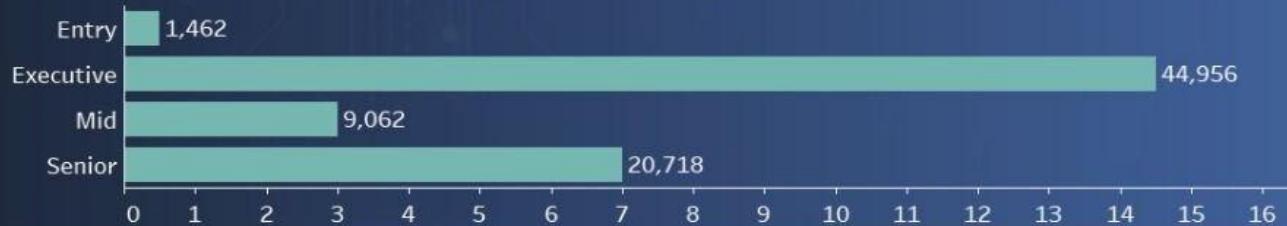
Most Salaries in the world



Top 3 Skills



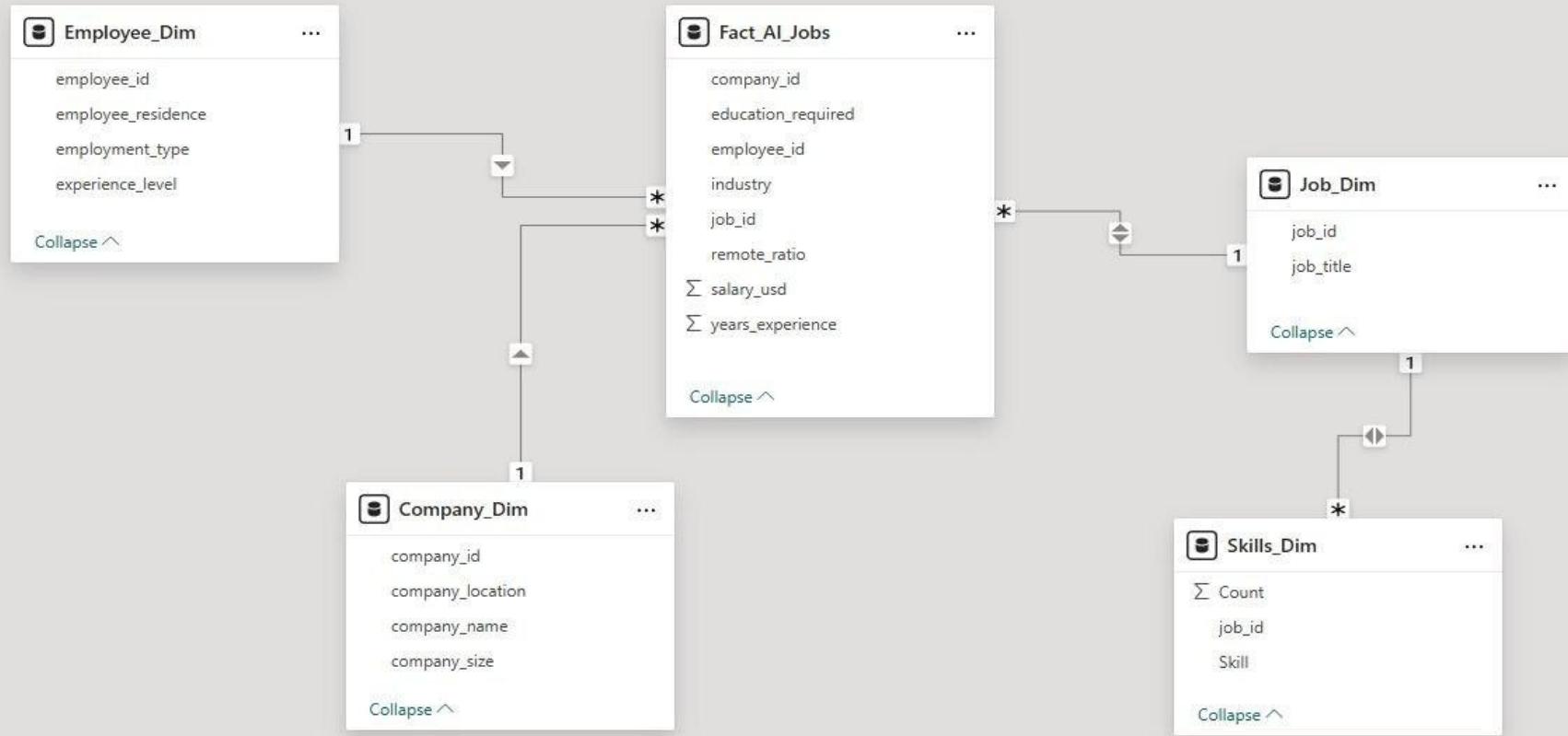
Experience by Years



Power BI



Data Modeling

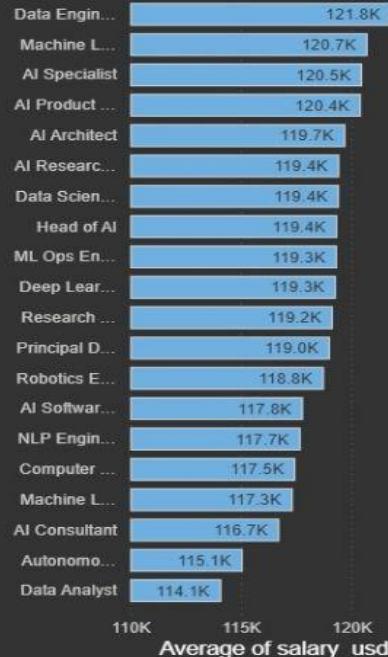


Data Modeling

Ai Jobs Analysis



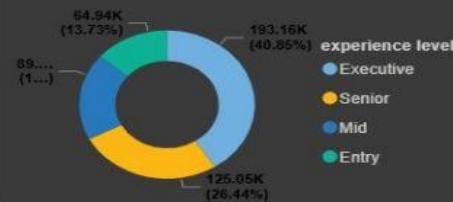
Average of salary by job title



30K
Employees

24
Skills

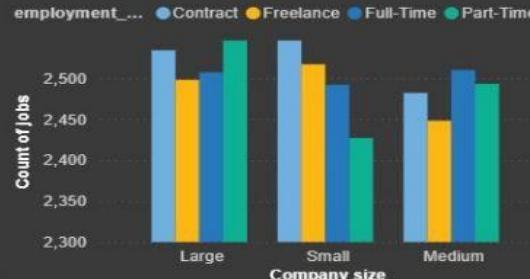
Average of salary by experience level



Average of experience years by experience level



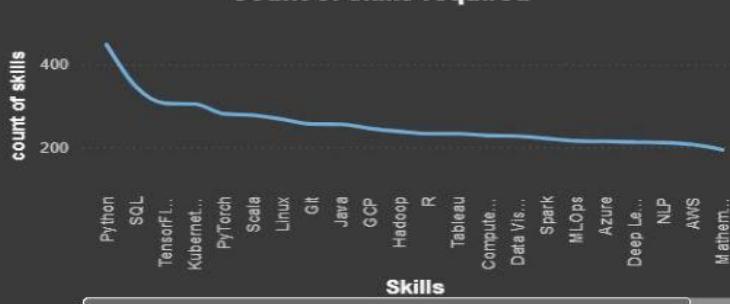
Count of jobs by company size and employment type



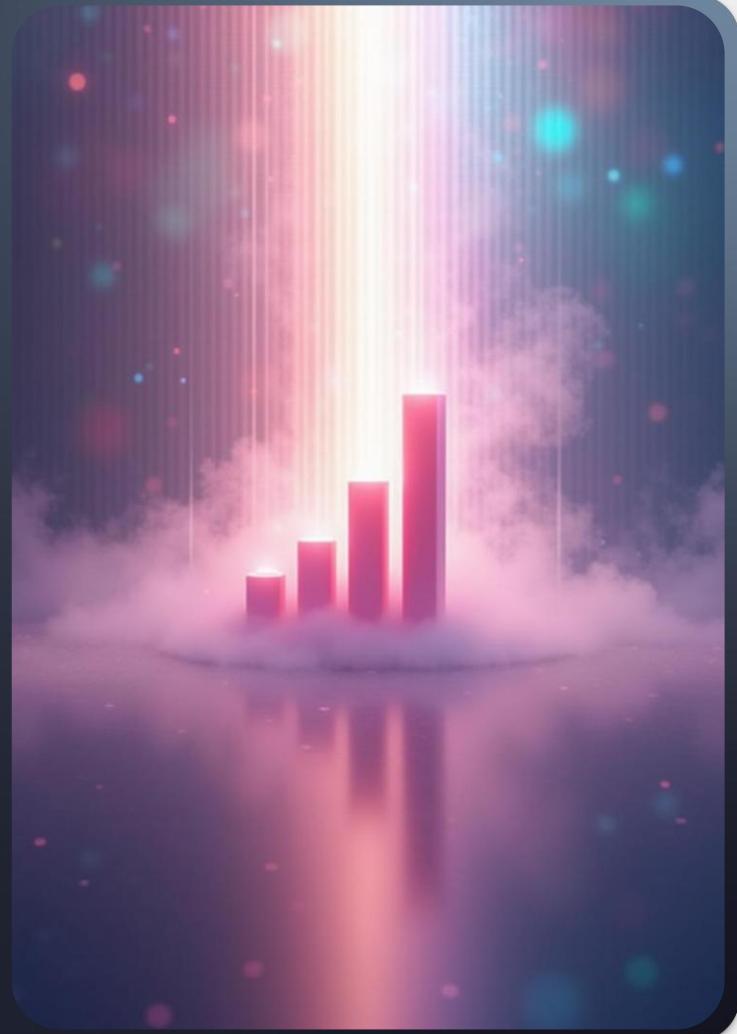
16
Companies

20
Countries

Count of skills required



Key Results



Skills demand and salary patterns



Analysis showed that technical skills, particularly **Python**, **SQL**, and **TensorFlow**, dominate demand across roles. Salary patterns varied significantly: the US offers the highest salaries, remote jobs command premium pay, and roles with senior experience receive top compensation. Notably, employees with a Masters degree often earned more than PhD holders in many roles.

Role types and company size impact

Results indicated that larger companies primarily offer full-time roles, while smaller firms frequently contract workers. Engineering and architecture positions are among the highest paid, whereas analyst roles report comparatively lower salaries. Employment type distribution remains balanced but reflects distinct hiring practices across company sizes.

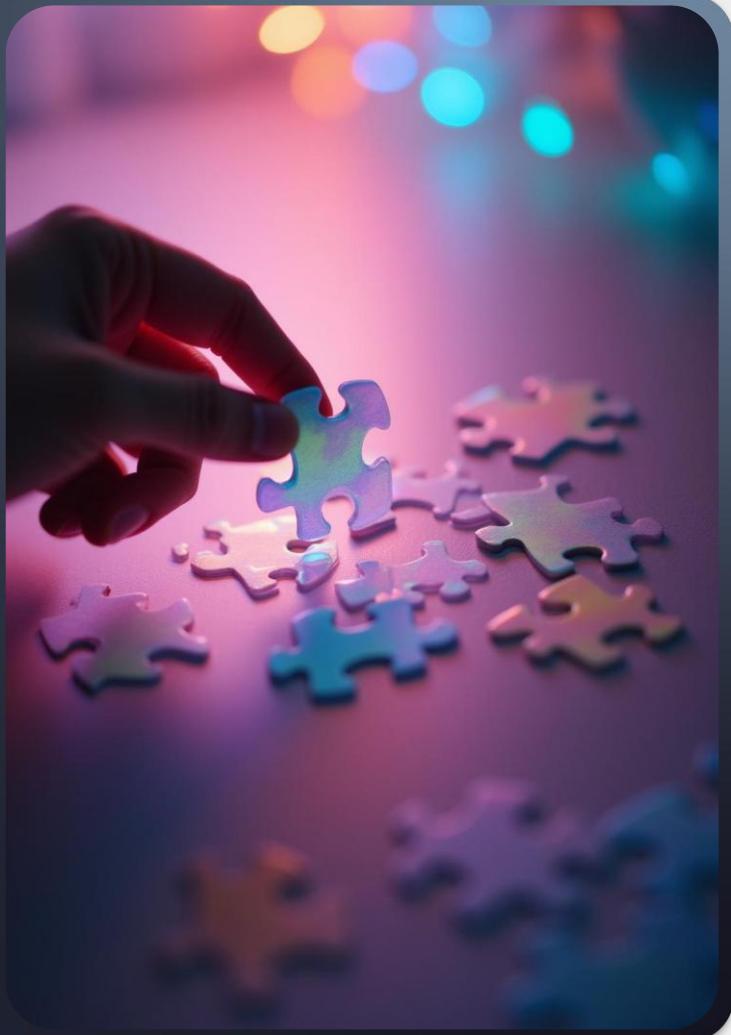


Work mode and geographic insights



Remote work stands out with higher average salaries, reflecting growing global demand for flexible AI talent. Geographic location influences pay, with the US and parts of Europe leading compensation. The dataset highlights the increasing adoption of hybrid and fully remote modes, reshaping AI workforce dynamics worldwide.

Recommendations and Applications



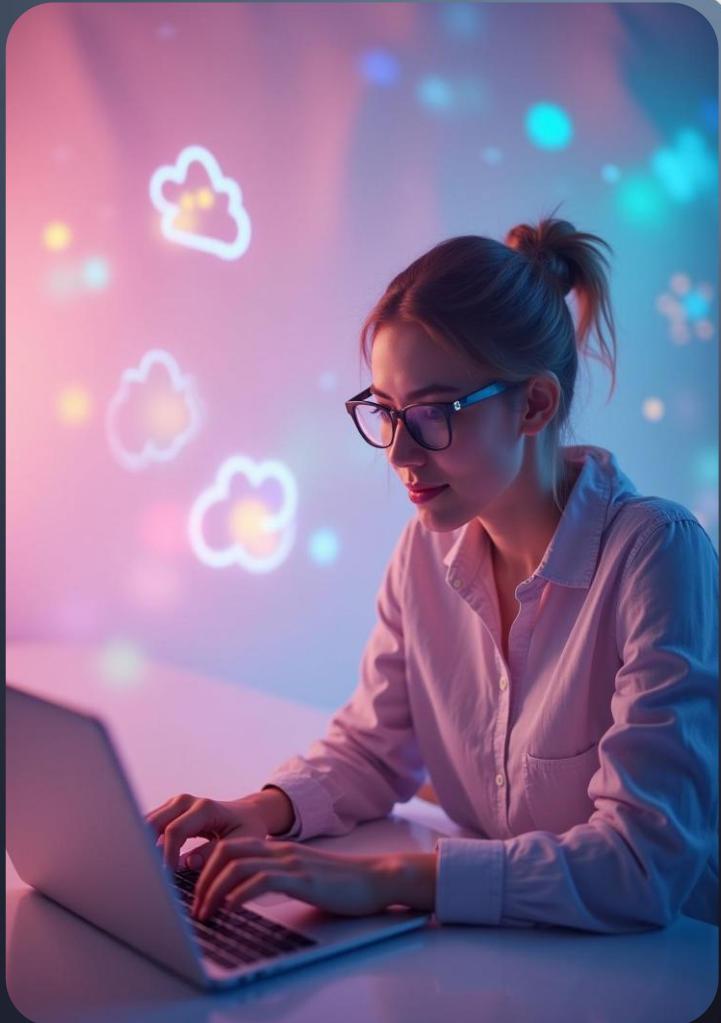
Skills development priorities



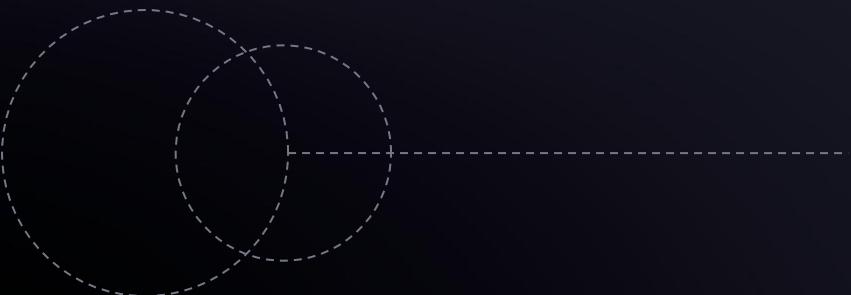
Professionals should focus on mastering **core AI skills** such as Python, machine learning frameworks like TensorFlow and PyTorch, and SQL. Building role-specific projects and continuously upskilling in advanced topics, cloud services, and deployment technologies boosts career competitiveness and salary potential.

Strategies for remote work success

To thrive in remote AI roles, candidates must develop strong asynchronous communication skills, gain experience with cloud platforms, and build portfolios that showcase independent project execution. These capabilities are essential for navigating and succeeding in a remote work environment with high salary prospects.



Organizational hiring and salary alignment



Companies should align salaries with global standards and prioritize hiring for in-demand skills emphasized by the data.

Understanding industry trends and employee experience requirements enables organizations to attract and retain senior AI talent, fostering competitive positioning in the evolving market.

Expected outcomes and impact

The analysis provides actionable insights on skill demand, compensation patterns, and workforce distribution. It highlights high-paying roles and remote work trends, helping stakeholders align training and hiring with industry needs.



Conclusions



This analysis presents a clear view of the AI job markets current landscape, revealing critical factors that shape hiring and compensation. The prominence of technical skills, impact of work mode, and company size nuances underline key market dynamics. The recommendations offer valuable guidance for professionals and organizations aiming to optimize career growth and workforce development in AI.

Thank you

