

MindGuild AI Career Report

SAMPLE. Fictional persona: Alex Rivera. Not a personal assessment and not a job offer.

What was entered

Current job: Junior data analyst

Skills: Excel, SQL, basic Python

Education: B.A. in Sociology

Interests: machine learning, healthcare, teaching

Location: Texas, United States

You entered Texas, United States. The occupational pages linked in this report are national profiles from the U.S. Bureau of Labor Statistics Occupational Outlook Handbook and from O*NET OnLine. They are not a state or city series. This report does not copy pay, employment, or growth figures from those pages.

Occupations you can pursue now

Data scientist

Established

Counted occupation. People are hired to do this kind of work today.

Data scientists organize data and build models so other people can make a decision. Artificial intelligence work in this occupation includes preparing a dataset, fitting a model, and checking whether the result is actually useful. The handbook and O*NET pages describe the occupation. This report does not copy their pay or employment tables.

Sources

BLS Occupational Outlook Handbook: Data scientists

<https://www.bls.gov/ooh/math/data-scientists.htm>

O*NET OnLine: Data Scientists (15-2051.00)

<https://www.onetonline.org/link/summary/15-2051.00>

Skills gap

Overlap: Python, SQL

Not found in what was entered: Statistics, Machine learning, Data visualization, Written communication

Next steps

1. Open each source link. Read what the occupation does and how people enter it. Leave pay and employment tables on the source page.
2. Your skill list did not include Statistics. Finish Machine Learning Specialization and publish one small project that uses it.
3. Write a short mapping from your current job, Junior data analyst, onto tasks named on the O*NET page.
4. The handbook profile is national. It is not a labor-market series for Texas.

Courses

Machine Learning Specialization (DeepLearning.AI)

<https://www.deeplearning.ai/specializations/machine-learning>

SQL for Data Science (Coursera)

<https://www.coursera.org/learn/sql-for-data-science>

Google Data Analytics Certificate (Google)

<https://grow.google/certificates/data-analytics/>

Machine learning engineer

Emerging research

A title employers use that is not its own handbook occupation. The links are the nearest

counted occupation.

Machine learning engineer is a title employers use. It is not its own occupation in the Occupational Outlook Handbook. The nearest counted occupation is software developers: the work is still designing and shipping software, with the added slice of training a model and keeping it running. The links below are that neighboring occupation, not a separate official page for this title.

Sources

O*NET OnLine: Software Developers (15-1252.00)

<https://www.onetonline.org/link/summary/15-1252.00>

BLS Occupational Outlook Handbook: Software developers

<https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm>

Skills gap

Overlap: Python, SQL

Not found in what was entered: Machine learning, Software design, Testing

Next steps

1. Open the O*NET and handbook links. They describe the nearest counted occupation, not a separate page for this title.
2. Write down the title you want and the handbook occupation as two different lines. Your current job note was: Junior data analyst.
3. Your skill list did not include Machine learning. Finish Practical Deep Learning for Coders and publish one small project that uses it.
4. The handbook profile is national. It is not a labor-market series for Texas.

Courses

Practical Deep Learning for Coders (fast.ai)

<https://course.fast.ai/>

Machine Learning Specialization (DeepLearning.AI)

<https://www.deeplearning.ai/specializations/machine-learning>

Machine Learning (Google for Developers)

<https://developers.google.com/machine-learning/crash-course>

Database administrator or architect

Established

Counted occupation. People are hired to do this kind of work today.

Database administrators and architects store data, control who can read it, and shape how it is modeled. Models depend on that work: a broken schema or an open database becomes a broken or leaky model. The Bureau of Labor Statistics covers administrators and architects on one handbook page. O*NET lists them as two occupations. Both links are below. Pay stays on those pages.

Sources

BLS Occupational Outlook Handbook: Database administrators and architects

<https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm>

O*NET OnLine: Database Architects (15-1243.00)

<https://www.onetonline.org/link/summary/15-1243.00>

O*NET OnLine: Database Administrators (15-1242.00)

<https://www.onetonline.org/link/summary/15-1242.00>

Skills gap

Overlap: SQL, Python

Not found in what was entered: Data modeling, Databases

Next steps

1. Open each source link. Read what the occupation does and how people enter it. Leave pay and employment tables on the source page.

2. Your skill list did not include Data modeling. Finish SQL for Data Science and publish one small project that uses it.
3. Write a short mapping from your current job, Junior data analyst, onto tasks named on the O*NET page.
4. The handbook profile is national. It is not a labor-market series for Texas.

Courses

SQL for Data Science (Coursera)

<https://www.coursera.org/learn/sql-for-data-science>

Python for Data Science, AI & Development (Coursera)

<https://www.coursera.org/learn/python-for-applied-data-science-ai>

Google Data Analytics Certificate (Google)

<https://grow.google/certificates/data-analytics/>

Statistician

Established

Counted occupation. People are hired to do this kind of work today.

Statisticians design studies and interpret data. That work is how an artificial intelligence result gets checked: what was measured, what was held out, and what the number does not mean. O*NET lists the occupation. The handbook URL is included because an archived copy of that path returned successfully; read the live page yourself for the current profile. This report does not copy figures from either one.

Sources

O*NET OnLine: Statisticians (15-2041.00)

<https://www.onetonline.org/link/summary/15-2041.00>

BLS Occupational Outlook Handbook: Statisticians

<https://www.bls.gov/ooh/math/statisticians.htm>

Skills gap

Overlap: Python

Not found in what was entered: Statistics, Mathematics, Written communication

Next steps

1. Open each source link. Read what the occupation does and how people enter it. Leave pay and employment tables on the source page.
2. Your skill list did not include Statistics. Finish CS229: Machine Learning and publish one small project that uses it.
3. Write a short mapping from your current job, Junior data analyst, onto tasks named on the O*NET page.
4. The handbook profile is national. It is not a labor-market series for Texas.

Courses

CS229: Machine Learning (Stanford)

<https://cs229.stanford.edu/>

The Analytics Edge (MIT OpenCourseWare)

<https://ocw.mit.edu/courses/15-071-the-analytics-edge-spring-2017/>

SQL for Data Science (Coursera)

<https://www.coursera.org/learn/sql-for-data-science>

Information security analyst

Established

Counted occupation. People are hired to do this kind of work today.

Information security analysts protect systems and investigate when something goes wrong. Artificial intelligence work in this occupation includes reviewing how a model is exposed, who can reach the data it trained on, and how an incident would be handled. Use the linked profiles

for the occupation. Do not copy a pay table out of them.

Sources

BLS Occupational Outlook Handbook: Information security analysts

<https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>

O*NET OnLine: Information Security Analysts (15-1212.00)

<https://www.onetonline.org/link/summary/15-1212.00>

Skills gap

Overlap: Python

Not found in what was entered: Security fundamentals, Networking, Risk assessment, Written communication

Next steps

1. Open each source link. Read what the occupation does and how people enter it. Leave pay and employment tables on the source page.
2. Your skill list did not include Security fundamentals. Finish Google Cybersecurity Certificate and publish one small project that uses it.
3. Write a short mapping from your current job, Junior data analyst, onto tasks named on the O*NET page.
4. The handbook profile is national. It is not a labor-market series for Texas.

Courses

Google Cybersecurity Certificate (Google)

<https://grow.google/certificates/cybersecurity/>

Elements of AI (University of Helsinki and MinnaLearn)

<https://www.elementsofai.com/>

Speculative future roles

Synthetic data curator

Speculative. Speculative — not a job promise

Speculative — not a job promise A research sketch, not a vacancy.

A synthetic data curator would decide whether generated data is fit to train or test a model, and would write down where it fails. Jordon and colleagues review what synthetic data is and why teams reach for it. The paper is not a workforce projection, and this title is not a posted job.

Sources

Jordon et al., Synthetic Data — what, why and how? (arXiv:2205.03257)

<https://arxiv.org/abs/2205.03257>

Skills gap

Overlap: SQL, Python

Not found in what was entered: Statistics, Written communication

Next steps

1. Read the cited paper's abstract and any part that says what the authors did not claim.
2. Keep this title labeled speculative. It is not a job promise and not a vacancy.
3. Use your current job, Junior data analyst, only as practice context: write which tasks a person still has to do.
4. Study Statistics in IBM Data Science, then write a short note on what the paper does not show. Finishing the course does not create this job.
5. The handbook profile is national. It is not a labor-market series for Texas.

Courses

These courses teach a method used in the cited research. Completing one does not create the speculative job.

IBM Data Science (Coursera)

<https://www.coursera.org/professional-certificates/ibm-data-science>

SQL for Data Science (Coursera)

<https://www.coursera.org/learn/sql-for-data-science>

Google Data Analytics Certificate (Google)

<https://grow.google/certificates/data-analytics/>

Personal model maintainer

Speculative. Speculative — not a job promise

Speculative — not a job promise A research sketch, not a vacancy.

A personal model maintainer would keep a small adapted model for one person's documents and record what the model was allowed to see. Hu and colleagues describe adapting a model by training a small set of added weights. That is a technique. It does not establish a career or an employer.

Sources

Hu et al., LoRA: Low-Rank Adaptation of Large Language Models (arXiv:2106.09685)

<https://arxiv.org/abs/2106.09685>

Skills gap

Overlap: Python

Not found in what was entered: Machine learning, Written communication

Next steps

1. Read the cited paper's abstract and any part that says what the authors did not claim.
2. Keep this title labeled speculative. It is not a job promise and not a vacancy.
3. Use your current job, Junior data analyst, only as practice context: write which tasks a person still has to do.
4. Study Machine learning in Natural Language Processing, then write a short note on what the paper does not show. Finishing the course does not create this job.
5. The handbook profile is national. It is not a labor-market series for Texas.

Courses

These courses teach a method used in the cited research. Completing one does not create the speculative job.

Natural Language Processing (Coursera)

<https://www.coursera.org/specializations/natural-language-processing>

Practical Deep Learning for Coders (fast.ai)

<https://course.fast.ai/>

Neural Networks and Deep Learning (Coursera)

<https://www.coursera.org/learn/neural-networks-deep-learning>

Agent fleet steward

Speculative. Speculative — not a job promise

Speculative — not a job promise A research sketch, not a vacancy.

An agent fleet steward would review logs from software agents and decide when a person has to take a task back. Park and colleagues built simulated characters that remember and plan. Wang and colleagues survey language-model agents. Neither paper is a hiring forecast or a vacancy.

Sources

Park et al., Generative Agents: Interactive Simulacra of Human Behavior (arXiv:2304.03442)

<https://arxiv.org/abs/2304.03442>

Wang et al., The Rise and Potential of Large Language Model Based Agents: A Survey (arXiv:2309.07864)

<https://arxiv.org/abs/2309.07864>

Skills gap

Overlap: Python

Not found in what was entered: Software design, Written communication, Testing

Next steps

1. Read the cited paper's abstract and any part that says what the authors did not claim.
2. Keep this title labeled speculative. It is not a job promise and not a vacancy.
3. Use your current job, Junior data analyst, only as practice context: write which tasks a person still has to do.
4. Study Software design in Practical Deep Learning for Coders, then write a short note on what the paper does not show. Finishing the course does not create this job.
5. The handbook profile is national. It is not a labor-market series for Texas.

Courses

These courses teach a method used in the cited research. Completing one does not create the speculative job.

Practical Deep Learning for Coders (fast.ai)

<https://course.fast.ai/>

Machine Learning Specialization (DeepLearning.AI)

<https://www.deeplearning.ai/specializations/machine-learning>