# Caroline Smith

## Data Science **Engineer**

#### Contact

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#### **Technology**

Python, Databricks, Scikit-learn, Pytorch, Pyspark, AWS, Azure, Tensorflow, Pandas, Geopandas, Numpy, LLMs, APIs, ArcGIS, GIS, R, Sentence-transformers, SQL, SAP S4 HANA, Oracle, Stata, Tableau, PowerBI

#### **Skills**

Machine Learning, Data Science, Data Engineering, Generative AI, API Development, Data Modeling, Applied Mathematics, Mathematical Programming & Modeling, Entity Resolution, Graphical Data Modeling, Application Design and Build, Data Analysis, Spatial Analysis, Web Application Development

#### **Employment History**

#### Accenture / Data Science and Engineering Specialist

OCT 2019 - PRESENT, BOSTON

- Worked on API and Python development for a generative AI "Platform in a Box" in Azure, which enabled generative AI governance, monitoring, responsible AI checks, load balancing, proxy connections, and standardization for a large biopharma client.
- Designed and developed machine learning analysis applications in AWS to automate master data management systems (using LLMs and Graphical Machine Learning) improving teams accuracy, scalability, and productivity.
- Developed Python and SQL data quality monitoring and automations to resolve backlogs and ensure continued data quality at various commercial clients.
- Deployed & owned calculation views for the master data management team which merged data across systems and applied data quality rules to transform data in SAP.
- Deployed and owned Python environments on Databricks/S3 for analyses, script execution and automation.
- Developed Python analyses to ingest materials data from legacy databases and perform web scraping and data enrichment for drug information from external reference sites and APIs.
- Performed ad-hoc statistical analyses on research questions regarding client data.
- Developed text processing algorithms and toolkits to perform entity resolution and clustering on client and materials data across multiple systems using Python and SQL.
- Oversaw the creation and implementation of novel data solutions from prototype stage and onward.
- Performed QA testing, analysis, and automation for SAP implementation for large public utility and electric provider – analyzing live data ("Net Metering") from renewable energy infrastructure. Led creation of technical documents for client education.

### Otis College of Art & Design Office of Institutional Research / Data Analyst OCT 2018 - JUNE 2019, LOS ANGELES

- Database creation, data analyses/scripting, & research project data support
- Created ad-hoc SQL data solutions in support of institutional research and effectiveness, strategic planning, and assessment activities institution wide.

## University of Kentucky Center for Health Sciences Research Data, Analytical, and Statistical Core / Data Analyst Intern

SEP 2017 - JUNE 2018, LEXINGTON KY

• Developed and executed database mining, analysis, querying, algorithms, visualization, and research project support using SQL, SPSS, and Tableau for healthcare applications.

#### University of Kentucky Thesis Project / Machine Learning

AUG 2017 - MAY 2018, LEXINGTON KY

• Analyzed large academic datasets to build a machine learning graphical model to calculate optimal busing systems for students while accounting for student location, cost constraints and other criteria.

#### **Education**

**University of Kentucky / Mathematical Economics B.S. / 2014 - 2018, LEXINGTON KY**Minor in Dance

**Udemy** / Zero to Mastery Complete A.I. & Machine Learning, Data Science Bootcamp / 2024