Lauren Mitchell

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EDUCATION

The George Washington University, Washington, D.C.

Bachelor of Science in Geology, Minor in Geographic Information Systems   May 2018
MIT | Applied Data Science Program   March 2022
BrainStation Bootcamp | Data Science   May 2022

EXPERIENCE

OpenClass, San Francisco, CA

Chief Data Scientist   November 2022- Present
- **Led End-to-End Data Science Initiatives:** Spearheaded 10 comprehensive data science projects focused on enhancing user access to their data for an improved learning experience and providing instructors with valuable insights into their classes, including the *Free Response Auto Evaluation* project, outlined below.
- **Proficient Database Utilization:** Applied advanced querying techniques in complex MongoDB aggregations, ensuring the efficient retrieval and analysis of data for all projects including the *Weekly Digest Emails*, outlined below.
- **AI Integration:** Successfully integrated the OpenAI API using few-shot prompting across the platform including a feature that automatically generates incorrect distractor options for multiple-choice questions.

Roux Associates, Oakland, CA

Staff Geologist   June 2019- August 2021
Staff Assistant Geologist   August 2018 - June 2019
- **Geospatial Analysis and Database Engineering:** Served as the primary geospatial data analyst on multiple Superfund litigation projects. Created geospatial chemical databases and conducted statistical analysis that served as a key argument in expert reports.
- **Report Writing and Documentation:** Produced concise and accurate reports derived from data analysis and field activities.
- **Project Management:** Led project proposals, budget preparations, and coordinated with subcontractors and regulators.

SKILLS

- **Programming Languages:** Python (scikit-learn, numpy, pandas, matplotlib, seaborn), SQL, MongoDB Query Language, HTML
- **Tools:** APIs, MongoDB, Huggingface Transformers, A/B tests, Hypothesis Testing, Statistics, Tableau, Excel, ArcGIS, SpaCy

PROJECTS

Data Science Project: Free Response Auto Evaluation, OpenClass
- **Overview:** Implemented a tool enabling instructors to efficiently assess class understanding by determining the percentage of students mentioning key points in open-ended responses.
- **Methodology:** Employed various models in production, including logistic regression for question classification, generative AI for key point extraction, and a transformers similarity model for comparing learner responses to key points.
- **Impact:** Received positive feedback from college instructors in large classes, enhancing their ability to assess student understanding without the need to read through numerous responses.

Data Analysis Project: Weekly Digest Emails, OpenClass
- **Overview:** Automated weekly data-summary emails for students, teachers, administrators, and our internal team and presented relevant data through clear visualizations, linked tables, and pertinent metrics.
- **Methodology:** Scheduled a Python script to query the database, processed data and created visualizations using pandas, matplotlib, and seaborn, and generated visually appealing HTML-formatted emails.
- **Impact:** Addressed instructor and administrator requests for specific metrics to be more readily accessible.