

# MICHAEL MURDOCK

Boulder, Colorado

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## EDUCATION

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**UNIVERSITY OF COLORADO BOULDER**, Boulder, CO

**2023**

### **BS in Information Science**

- Minor in Business and Financial Analytics
- Cumulative GPA: 3.9
- Transfer Excellence Scholarship
- Course Grader for Computational Reasoning
- Relevant Courses: Applied Machine Learning, User-Centered Design, Computational Reasoning, Decision Science, Information Exploration, Information Visualization, Data Science and Biostat

## EXPERIENCE

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**HANDSHAKE**, San Francisco Bay Area, CA

**06/22-08/22**

### **Data Engineer Intern**

- Built a new, incremental data model (DBT) for jobs and postings at a monthly cadence, reducing heavy terabyte hits and improving speed of end-user queries/Looker explore runs
- Wrote Airflow DAGs to run two DBT models and upstream dependencies on a scheduled interval, limiting table builds and removing cluttered derived tables for better optimization
- Tied together 10+ created and existing data assets in a new Jobs explore (Looker), helping finance monitor recession impact by visualizing postings over time with filterable dimensions
- Dealt with stakeholders in an agile workflow (Jira) to implement over five premium job measures requested for Handshake Plus, giving product data for comparing metrics of employers with upgraded jobs

**UNIVERSITY OF COLORADO BOULDER**, Boulder, CO

**08/21-05/22**

### **OIT Operator**

- Collaborated with hundreds of remote students and professors to understand conflicts with hybrid modalities and requested changes
- Led professors through classroom environment set-up and troubleshoot problems to facilitate improvements in satisfaction among participants, leading to a 25% increase in class engagement
- Learned and operated five new software packages to support, engage, and guide classroom lessons and functionality

**BCI**, Chicago, IL

**06/21-08/21**

### **Data Analyst Intern**

- Wrote scripts and documentation using git/GitHub for automating weekly reports in Python and SQL, allowing low-level employees to produce, distribute, and schedule reports
- Interacted and communicated with two teams (Data Relevance and Call Center) to identify areas for data optimization and desired metrics
- Designed visuals in Tableau and Python leveraging packages such as Matplotlib, Seaborn, Pandas, and Altair to cultivate stories and present to management on a weekly basis

## PROJECTS

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**CRYPTO RESEARCHER/VISUALIZER**, Python, SQL, Prophet, Pandas, Matplotlib, Git

**08/21-09/21**

### **Boulder**

- Directed a team in constructing a script for researching, predicting, and quickly visualizing thousands of cryptocurrencies and its time-series data from Coin Gecko API, advancing time it takes to research multiple coins
- Implemented three automated plot annotations for identifying events in crypto markets potentially affecting prices, enabling users to better understand market conditions
- Created two custom Plotly graphs to serve as volatility and ticker plots with informative tool-tips

**CONGRESSIONAL SPENDING ANALYSIS**, Python, Pandas, NumPy, Matplotlib, Seaborn, Git

**08/20-10/20**

### **Denver**

- Composed and published a blog post on Medium highlighting comparisons in congressional expenditures across parties and exposed representatives with data backing unethical decisions, totaling over 100 views
- Designed advanced Seaborn visualizations utilizing Matplotlib for annotations and several additional customizations
- Imported hundreds of thousands of data points depicting representative expenditures and manipulated/analyzed using Pandas, SQLite, and NumPy

## TECHNICAL SKILLS

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- Languages: Python, C++, SQL (BQ, MySQL, Postgres), HTML, JavaScript, R
- Frameworks: Node.js, Bootstrap
- Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio
- Libraries: pandas, NumPy, Altair, Matplotlib, scikit-learn, TensorFlow