Adam McNelis Mahmoud

Berkeley, CA 94704 | January 2025

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Education

University of California, Berkeley **August 2022 – May 2026 (Expected)**

B.A. in Data Science - *concentration in Applied Math and Modeling* *Berkeley, CA*

B.A. in Applied Mathematics - *concentration in Numerical Analysis* GPA: 3.9

Experience

Data Intern **January 2025 – Present**

Fung Institute for Engineering Leadership, UC Berkeley *Berkeley, CA*

- Analyze current student and alumni data to garner insights, supporting improvements and demonstrating the impact of educational initiatives for both the Fung Fellowship and Master of Engineering programs.
- Maintain and develop databases for program operations and project management, utilizing Salesforce and Google tools to ensure accurate data entry and management.
- Develop data visualizations for use by teaching and program teams, sharing insights with internal and external stakeholders.

Data Analyst **September 2023 – Present**

Enrollment Management (EM) Department, UC Berkeley *Berkeley, CA*

- Query, clean, and visualize student demographic and academic data using Tableau, Excel, Python, and SQL.
- Collaborate with department heads and data analysts to communicate data insights, both in technical terms and in clear, accessible narratives, to inform strategic enrollment decisions.
- Conduct data analysis to determine the number of admissions required to meet in-state residency targets for the 2024 academic year, directly contributing to the enrollment of over 800 additional in-state students, a 1% increase compared to previous years.
- Develop the EM website by designing and implementing interactive, data-driven visualizations to showcase enrollment trends and student demographics. Write HTML code for specific elements to ensure accessibility and enhance the user experience.

Technical Skills

Coding: Python, SQL, R, Java, HTML, CSS, JavaScript
Libraries: Numpy, Pandas, Scikit-learn, Matplotlib/Seaborn
Data Analysis Tools: Tableau, Excel, Google Sheets, Power BI, ATLAS.ti
Specializations: Data Wrangling, ETL, A/B Testing, Predictive Modeling

Research

Exploring Indian Non-Governmental Organization (NGO) Distribution **January 2024 - May 2024**

UC Berkeley Data Science Discovery Program *Berkeley, CA*

- Collaborated with Daanmatch to understand how to better allocate funding for over 10,000 NGOs across India.
- Standardized NGO address data with RegEx and developed reproducible workflows using Git for version control.
- Conducted exploratory data analysis, data cleaning, and visualization using Python (Pandas, Seaborn, Matplotlib), culminating in a poster presentation at the Data Science Discovery Program Symposium.

Extracurricular

Student Advisory Board Member **October 2024 – Present**

College of Computing, Data Science, and Society (CDSS), UC Berkeley *Berkeley, CA*

- Advise the College of CDSS on student needs, priorities, and emerging concerns through regular pulse surveys.
- Contribute to discussions on initiatives including advising processes, diversity and inclusion, and student organization support.

MPS Scholars Program Mentor **August 2024 – Present**

Mathematical and Physical Sciences (MPS) Scholars Program, UC Berkeley *Berkeley, CA*

- Mentor students majoring in math, holding bi-weekly group meetings and individual one-on-one meetings.
- Guide students through the MPS department and math major by providing tailored academic advice, sharing personal experiences, and offering support to foster a sense of community and academic confidence.

Projects

Cook County Housing Price Prediction | *Python, Scikit-learn, Pandas, Matplotlib, Seaborn* **October 2024**

- Developed a predictive model for housing prices in Cook County using `scikit-learn`, leveraging exploratory data analysis, feature engineering, and linear regression to analyze over 500,000 records.
- Designed a comprehensive data pipeline, including outlier removal, log transformations, and one-hot encoding.
- Evaluated model performance on validation data and mitigated potential biases by analyzing historical disparities and trends.

Relevant Coursework

Data Science: Foundations of DS, Computational Structures, DS Principles, Data Structures, Numerical Analysis for DS

Mathematics: Multivariable Calculus, Linear Algebra, Discrete Math, Abstract Algebra, Analysis, Complex Analysis