Adam McNelis Mahmoud

Berkeley, CA 94704 | September 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*

  Coursework: Foundations of DS, Computational Structures, DS Principles, Data Structures, Probability for DS, Data Engineering   GPA: 3.85

B.A. in Applied Mathematics — *concentration in Numerical Analysis*

  Coursework: Multivariable Calculus, Linear Algebra & Differential Equations, Abstract Algebra, Real Analysis, Complex Analysis, Numerical Analysis

TECHNICAL SKILLS

Coding: Python, SQL, R, Java, HTML   Data Analysis Tools: Excel, Tableau, Google Sheets, ATLAS.ti

Libraries: Numpy, Pandas, Scikit-learn, Scipy, Matplotlib   Specializations: Python in Excel, Clustering Algorithms, Data Pipelines

WORK EXPERIENCE

Data Scientist Intern → Data Scientist   **May – August (Internship), September 2025 – Present (Part-Time)**

Omnium   *San Diego, CA*

- Designed and executed a research project and Python pipeline introducing seasonality-based clustering algorithms to improve pricing regressions, enhancing Omnium's approach to demand modeling.
- Built and compared regression models to quantify market preferences, projecting expected sales growth from new product launches and establishing a scalable framework for brand innovation analyses.
- Prepare dashboards and lead account planning calls with client brokers and sales managers, informing strategic recommendations on distribution, pricing, and promotion.

Data Intern   **January – May, August 2025 – Present**

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

- Analyzed student and alumni data to evaluate program impact, drive improvements in accessibility and equity, and inform strategic academic decisions for the Fung Fellowship and Master of Engineering programs.
- Cleaned, developed, and maintained data pipelines for program operations and project management.
- Created data visualizations for use by teaching and program teams, presenting results to internal and external stakeholders.

Data Analyst   **September 2023 – March 2025**

Enrollment Management Department, UC Berkeley   *Berkeley, CA*

- Queried, cleaned, and visualized student demographic and academic data using SQL, Python, Excel, and Tableau.
- Collaborated with department leaders and analysts to translate insights into clear recommendations, informing strategic enrollment decisions.
- Analyzed admissions data to set in-state residency targets for 2024, resulting in the enrollment of 800+ additional in-state students.

Admissions Exam Reviewer   **February 2025 – March 2025**

Stanford University Mathematics Camp (SUMaC)   *Remote*

- Holistically assessed admissions exams for SUMaC (Stanford's advanced summer math program), evaluating students' mathematical creativity, logical reasoning, and proof-based problem solving beyond rigid rubrics.
- Delivered comprehensive written evaluations and recommendations, shaping admission decisions for top candidates.

RESEARCH PROJECTS

Seasonality Clustering – A Hierarchical Agglomerative Approach | *Python (SciPy, scikit-learn, Matplotlib)*   **Omnium Internship**

- Implemented hierarchical agglomerative clustering on product seasons with custom distance metrics combining velocity variation and temporal gaps to favor continuous seasonal clusters; evaluated models across multiple linkage criteria using dendrograms and silhouette scores.
- Applied clustered season definitions to pricing regressions, reducing multicollinearity compared to standard 13-period models and achieving higher R^2 values with improved demand predictions.

Analyzing Academic Resource & Funding Allocation at UC Berkeley | *Excel*   **UC Berkeley CAPRA**

- Investigated UC Berkeley's central campus finances for the Academic Senate's Committee on Academic Planning and Funding Allocation, analyzing departmental and divisional ledgers to inform policy recommendations.
- Queried CalAnswers data on enrollment and revenue streams, producing visualizations of program-level trends to identify sources of revenue and loss.

Exploring Indian NGO Distribution | *Python (Pandas, RegEx, Matplotlib), Git*   **Data Science Discovery Program**

- Collaborated with Daanmatch to analyze funding allocation for 10,000+ Indian NGOs, standardizing address data and developing reproducible workflows using Git.
- Conducted EDA, cleaning, and visualization, presenting findings at the UC Berkeley Data Science Discovery Symposium.