Aaron Chau

aaronjchau.com | github.com/aaronjchau

Education

Stanford University 2025 - present
Graduate Studies (NDO), Computer Science *Stanford, CA*

- Coursework: Linear Algebra & Multivariable Calculus (Math 51), Data Structures & Algorithms (CS106B), Discrete Math & Theory (CS103)

University of California, Irvine 2015 - 2019
B.S., Public Health Science (GPA: 3.82) *Irvine, CA*

- Phi Beta Kappa, Magna Cum Laude, UC Regents' Scholarship Recipient
- Barry M. Goldwater Scholarship Hon. Mention

Experience

Research Data Scientist Mar. 2022 – June 2024
UCI Health, Research Team *Orange, CA*

- Published 2 first-author peer-reviewed papers, examining how phone outreach boosted survey returns by 54%
- Assembled patient datasets with Pandas; ran T-tests, chi-square, logistic regression with SciPy/scikit-learn
- Collaborated on feature engineering of 40+ new variables with statisticians, refining patient cohort metrics
- Built Docker dev containers (Jupyter, LaTeX, SQL) signicantly reducing new environment setup time
- Piloted HIPAA-compliant GPT-4 model to detect key topics in clinician notes, surpassing previous NLP accuracy

Data Analyst Sep. 2019 – Mar. 2022
UCI Health, Research Team *Orange, CA*

- Developed Python ETL pipelines processing 130+ columns across 10+ data sources (CSVs, log files, SQL extracts)
- Designed Tableau dashboards tracking weekly outreach progress, prompting reallocation of 2 FTEs to outreach
- Coordinated weekly QA data checks with clinicians, version-controlling logic in GitHub for auditability
- Translated clinical requirements into SQL extract specs, defining schema, scheduling, and file handling protocols
- Automated pivot table reporting, enabling focused outreach (time-of-day, language) to underrepresented patients

Project Intern Mar. 2017 – Feb. 2020
WellSpace Health, Quality Improvement Team (Dr. Janine Bera) *Sacramento, CA*

- Proposed and led QI study of 110+ patients, building SQL database and computing breast cancer risk scores
- Presented cost-benefit analysis to executive leadership, securing resources for a new cancer screening program

Research Intern Apr. 2017 – Jan. 2020
UCI, Computational Astrophysics Group (Dean James Bullock) *Irvine, CA*

- Built feed-forward TensorFlow neural networks predicting dark matter properties, presenting to physicists weekly
- Authored a Goldwater Scholarship essay and received strong LORs emphasizing computational research

Publications

UC Health Care Planning Study 2019 - 2025
UCI Health, Research Team *Orange, CA*

- J. Of General Internal Medicine 2024 (mid author paper): wrote python scripts for analysis; manuscript revisions
- Ethnicity & Disease 2024 (1st author paper): developed hypothesis and analytical plan; manuscript writing
- J. of Palliative Medicine 2023 (mid author paper): wrote python scripts for stat. analysis; manuscript revisions
- J. of General Internal Medicine 2023 (1st author paper): developed hypothesis, analysis plan; manuscript writing

Technical Skills

Languages: Python (Pandas, NumPy, PyTorch, TensorFlow, SciPy, matplotlib), C++, Postgres SQL
Tools: Docker, Git, Bash, Jupyter Notebooks, Tableau, LaTeX, Excel