SAMANTHA ALEJANDRE

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SUMMARY

Detail-oriented UCLA Data Science graduate (B.S.) & incoming M.S. (ECE - Data Science & AI) with over 2+ years of hands-on experience in data analysis, engineering, and policy research. Passionate about using data to address unseen challenges in fintech, climate equity, and public health, with a commitment to developing research-informed projects that empower underrepresented communities. Eager to apply rigorous analytical approaches and collaborate within a team to drive impactful, data-driven solutions

EDUCATION

University of California, Los Angeles (UCLA) **Los Angeles, CA**
M.S., Electrical and Computer Engineering (Data Science & AI) *Expected June 2027*

University of California, Los Angeles (UCLA) **Los Angeles, CA**
B.S., Data Theory and Data Science Engineering *Expected June 2025*
GPA: 3.9/4.0

SKILLS

- Languages & Libraries: Python (Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow, LangChain, OpenCV, Geopandas), SQL, R (tidyverse, tigris, tidycensus), Bash
- Cloud & Tools: AWS (S3, Athena, SageMaker), GCP, Docker, Airbyte, dbt, Git/GitHub/GitLab, ArcGIS/QGIS, Tableau, Excel, Figma, Jira
- Methodologies: Machine Learning (Regression, Classification, Clustering, Neural Networks, Transformers, YOLOv8), ETL Pipelines, Data Mining, Statistical Analysis, Geospatial Processing & Analysis, Project Management, CI/CD, RAG

WORK EXPERIENCE

Latino Policy and Politics Institute (LPPI) **Los Angeles, CA**
Data and Policy Analyst *February 2024 - Present*

- Led comprehensive data research for two CalWellness climate-health equity projects, analyzing 100+ indicators from government sites (ACS, CHIS, OEHHA, EPA, CDC) to evaluate extreme heat and air pollution impacts on California's Latino communities
- Engineered automated geospatial mapping solutions (Python/Geopandas/ArcGIS) and developed 4+ flat-files for the "Latino Climate and Health Dashboard," defining neighborhood categorization metrics and rigorously verifying indicator consistency
- Utilized R (tidyverse, tidycensus) to process, clean, and validate datasets for 92 county factsheets, performing population-weighted calculations for over 50 neighborhood-level indicators to ensure data accuracy and prototyping maps
- Collaborated and presented with policy teams and designers on factsheet content (Excel, Canva, Figma); presented data-driven findings and methodologies to advisory committees, in quarterly basis contributing to over $1,000+ project funding increase

Wisetack (Fintech) **San Francisco, CA**
Data Engineer Intern *June 2023 - September 2023*

- Constructed and deployed a dynamic Tableau dashboards by integrating Jira and Salesforce data via Amazon Athena, providing key operational insights and as a result increased Jira task closure rates by approximately 1.5x for the Engineering Team
- Architected and automated Fiserv API data extraction by developing a custom Airbyte connector, supporting 2+ critical data streams for analytics team; containerized solution with Docker and established GitLab CI/CD pipelines for ETL testing and deployment
- Executed data cleaning and transformation for 50+ S3 data tables applying SQL; performed feature engineering for machine learning models (neural networks, logistic regression, decision trees), attaining 87% sales prediction accuracy
- Authored pull request for Airbyte's open-source GitHub repository, contributing the Fiserv API connector, thereby enhancing analytics workflows for 100+ internal users and broader developer community

KEY PROJECTS

Chess RL Transformer (NLP, Deep Learning, Team Project) **UCLA | Spring 2025**

- Built an autoregressive transformer for chess move prediction (FEN sequences), by engineering pre-trained model to achieve 98%+ legal move accuracy and developing an open-source UI for interactive play; and currently co-leading GRPO (Reinforcement Learning) refinement with Stockfish

SEMG Keystroke Decoder (Deep Learning, NLP) **UCLA | Winter 2025**

- Engineered and evaluated deep learning models (Conv-GRU, LSTM, Transformer) for SEMG-to-QWERTY keystroke decoding, identifying Conv-GRU as optimal architecture by achieving a 2x Character Error Rate (CER) improvement over baseline model and optimizing training compute by 2x via electrode channel reduction analysis

ChangeBot (RAG, NLP, Team Lead) **UCLA Data Science Union | Winter 2023**

- Led a 6-member team in developing "ChangeBot," a RAG-based chatbot (LangChain, HuggingFace) to generate personalized emails for local representatives, resulting in a 33% reduction in misdirected representative emails and improving constituent communication

LEADERSHIP & RECOGNITION

- Daily Bruin Podcast Producer: Produced episodes; interviewed professors and edited content for release
- Data Science Union Lead: directed quarter projects, workshops, and fundraising to support student-led outreach
- Awards: Won Kaggle Competitions (1st), DataFest Top 10/50, Dean's Honor List (4 yrs), Eagle Scout