

Kyle Shiroma

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EDUCATION

University of California, San Diego
B.S. in Data Science, Minor in Mathematics

La Jolla, CA
Expected June 2027

EXPERIENCE

HDSI Lab 3.0, UC San Diego
Data Science Fellow

San Diego, CA
Oct 2025 – Present

- Developed the **HDSI Lab website using Astro and React**, improving research visibility and accessibility.
- Designed and built an **interactive 3D optical sensing demo** using actuators, servo motors, and fiber-optic pathways for live research presentations.
- Engineering a **computer vision pipeline** to auto-correct misalignment in **400+ LED arrays** using laser feedback and classification models.

CIC Summer Research Program, California State University, Fullerton
Data Science Research Intern

Fullerton, CA
May 2024 – July 2024

- Trained and evaluated ML models (Logistic Regression, XGBoost, Random Forest) on **5,900+ UEFA matches** to predict outcomes.
- Achieved **61% accuracy** and improved recall for rare draw outcomes by **20%**; identified Elo difference as the most influential feature via feature importance analysis.

PROJECTS

Weather & Energy Dashboard | React, Astro, FastAPI, Python, scikit-learn

Dec 2025

- Built a full-stack forecasting platform delivering real-time weather data and **14-day electricity demand predictions** across four California utility regions serving **35M+ residents**.
- Trained Gradient Boosting models on **315K+ observations**, achieving **2.26% MAPE**; implemented FastAPI backend and interactive React frontend.

EvoCharge – DS3 Initiative | Python, Lasso Regression, Figma

Oct 2025 – Dec 2025

- Developed ML-driven dashboard predicting EV charging energy usage and costs using Lasso regression trained on **3,500+ sessions** and data from **16,455 stations**.
- Designed complete UI/UX in Figma, delivering intuitive layouts for energy estimates, cost predictions, and interactive station maps.

Pulsepanion – AI4Purpose NYC Hackathon Winner (Team Lead) | R Shiny, Python, OpenAI

July 2025

- Led team to build a **bilingual R Shiny dashboard** enabling caregivers to upload patient data and receive actionable summaries in **under 15 seconds**.
- Integrated OpenAI LLMs via reticulate, **reducing manual review time by 70%**; presented winning solution to healthcare industry judges.

Customer Segmentation with RFM Analysis | SQL, Excel, Tableau

Apr 2025 – May 2025

- Analyzed **500K+ transactions** across **37 countries** using SQL-based ETL pipelines and RFM segmentation.
- Built Tableau dashboards that enabled marketing teams to **improve spend allocation by 25%**, translating analytical findings into data-driven recommendations for executive stakeholders.

TECHNICAL SKILLS

Languages: Python, SQL, R, JavaScript, C++, HTML/CSS

Frameworks & Libraries: React, Astro, FastAPI, Node.js, pandas, NumPy, scikit-learn

Data Science: Time Series Forecasting, Feature Engineering, Model Evaluation, A/B Testing

Tools: Git, Docker, Airflow, AWS (S3, EC2), PostgreSQL, SQLite, Tableau, Excel, PowerPoint

CERTIFICATIONS

Apache Airflow: The Hands-On Guide (Udemy) — Built production-grade data pipelines using DAGs; implemented monitoring, RBAC security, and executor configurations.