

EDUCATION

University of California San Diego
Bachelor of Science Data Science

La Jolla
2026

EXPERIENCE

Student Intern - Innovating for National Security (i4NS)

Sep 2024 – Dec 2024

United States Department of Defense (DoD)

La Jolla, CA

- Contributed to the development of a Venture Capital (VC) Dashboard to assist the Department of Defense (DoD) in identifying mature and emerging service-related technologies within investor portfolios.
- Applied the Lean LaunchPad methodology to help teams rapidly address complex challenges, iterate on solutions, and deliver customer-tailored minimum viable products.
- Fostered connections between military technology innovations and defense-focused venture capitalists, as well as entrepreneurs, to promote civilian-military technological advancements.
- Streamlined the transition of internal RD projects into market-ready solutions, enhancing operational efficiency and innovation within the DoD.

PROJECTS

MLB Players Performance and Diversity Visualization | June 2024

[Link](#)

- Developed a browser-based dashboard using D3.js to visualize key swing metrics (attack angle, bat speed, strike zone heatmaps) for MLB hitters
- Implemented multiple interactive visualizations: gauge charts, animated SVG paths, scatter plots, radar charts, and histograms, showing contact rate, wOBA, and directional tendencies.
- Designed the UI with a custom `style.css` layout using a card system, responsive breakpoints, hover tooltips, and SVG-based rendering.

Predicting Chronic Kidney Disease ML Model | July 2024

[Link](#)

- Conducted comprehensive EDA to understand data distributions, correlations, and relationships.
- Addressed missing values by identifying their mechanism and applying appropriate imputation techniques.
- Created visualizations such as confusion matrices and classification reports to communicate model performance.
- Explored and engineered features to enhance model performance. Identified and combined relevant features to improve predictive accuracy.
- Employed hyper parameter optimization and rigorous cross-validation methodologies to refine model accuracy and robustness

Housing Evaluation Across the U.S | March 2025

[Link](#)

- Designed and deployed a full-stack house valuation web application integrating a LightGBM-based regression model to predict property prices across the U.S. using over 2M listings and enriched geographic datasets.
- Performed robust data engineering and feature engineering including zip-level imputation, crime stats integration, proximity analysis, and home category classification using geodemographic segmentation.
- Built an interactive UI with React and Material-UI, featuring Google Maps integration, valuation scoring, and amenity-based neighborhood insights. Deployed using Vercel and Railway with scalable architecture.
- Outperformed baseline models (OLS, Ridge, Random Forest) with a LightGBM model achieving better RMSE, showcasing optimization via RandomSearchCV and effective use of engineered features.

TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, HTML/CSS

Frameworks: React, Node.js, Django

Developer Tools: Git, Visual Studio, PyCharm, IntelliJ, Microsoft, Tableau, STATA, SQLite, PostgreSQL

Libraries: pandas, NumPy, Matplotlib, seaborn, Pytorch, skLearn, D3.js, Three.js