

Sia Khorsand

skhorsand00@gmail.com || [linkedin.com/in/siakhorsand/](https://www.linkedin.com/in/siakhorsand/) || github.com/siakhorsand || 949-872-0052

EDUCATION

University of California, San Diego | La Jolla, CA

Expected Graduation Date: December 2025

B.S. - Cognitive Science, Specialization in Machine Learning & Neural Computation Cumulative GPA: 3.63

Minors: Computer Science and Design

Relevant Coursework: Advanced Data Structures, Systems and Algorithms, Data Science, Probability and Statistics, Supervised/Unsupervised Machine Learning, Language Models, Genetic Algorithms, Project Management.

PROJECTS (source codes available upon request)

Comparative Analysis of Supervised ML Models | Python, Sklearn, Matplotlib

- Conducted a comprehensive empirical analysis comparing **Random Forest**, **SVM**, and **Logistic Regression** across three binary-class datasets from the UCI ML Learning Repository.
- Fine-tuned hyperparameters using **GridSearchCV** and performed 10-fold cross-validation to optimize performance. Analyzed models' performance on metrics such as accuracy and log loss across different train-test splits.

Housing Market Prediction | R, dplyr, tidymodels

- Employed **ML** models such as **linear/logistic regression** to predict housing prices and analyze its impact factors.
- Conducted a full analysis of the Boston housing market using R, exploring various factors across 506 neighborhoods to achieve a deep understanding of the market dynamics and improve prediction accuracy by **22%**.

Dynamic Valet Business Management App | Swift, SwiftUI, Firebase

- In the final development stages of an iOS app, currently being beta-tested for my part-time valet job, to dynamically manage and track shifts and cars with a responsive grid layout to **boost efficiency by 25%**.
- Employed **MVVM architecture** for data persistence, along with **Firebase** integration for user authentication.

Blackjack Game | Python

- Developed a console-based Blackjack game, featuring user interactions and automatic game state management using Python.
- Implemented full game logic** including betting, card dealing, and win/loss calculations with visual card displays.
- Enhanced user experience with error handling, currency formatting, and file-based data persistence for game states.

EXPERIENCE

Instructional Apprentice | La Jolla, CA

Sept 2024- Present

UC San Diego

- Facilitated COGS 10 sections** for **100+ students**, discussing real-world applications of technology/cognitive science.
- Worked with renowned cognitive science professor, **Jim Hollan**, in **devising and grading projects/assignments**.

SKILLS & TECHNICAL TOOLS

Machine Learning/Data Science: EDA, Wrangling, Feature Engineering, Neural Networks, Evolutionary Algorithms, Swarm Intelligence, Clustering, Classification.

Software Engineering: OOP, Data Structures, Algorithms, Time Complexity and Optimization, Dynamic Programming

Tools/Technologies: Numpy, Pandas, Matplotlib, Pytorch, Tensorflow, Sklearn, Flask, SwiftUI, FireBase, Git.

Skills: Project Management, Agile/Scrum Methodologies, Adobe CC, Proactive Communication, User Research/Testing.