

SHREE VENKATESH

☎ 669-220-4594 | ✉ vshree852@gmail.com | 🌐 shree-venkatesh.github.io | in shree-venkatesh | 🌱 shree-venkatesh

EDUCATION

University of California San Diego

San Diego, CA

Bachelor of Science in Computer Science - GPA: 3.6

Expected Graduation: Dec. 2025

- **Coursework:** Computer Architecture, Digital System Design, Systems Programming, Machine Learning, Software Engineering

EXPERIENCE

Embedded Systems Engineering Lead

Sept. 2023 – May 2024 (Engineer) | Jun. 2024 – Present (Lead)

Triton Unmanned Aerial Systems

San Diego, CA

- Engineered an autonomous payload-guidance system using an **ESP32**, a BN-880 GPS/Compass Module and a Proportional Control Algorithm to safely and accurately drop payloads onto a target within a **20ft radius** from **75ft altitude**.
- Built a signals board utilizing an **STM32** microcontroller to process thermistor data and communicate with the **Pixhawk** Orange Cube flight controller through the **MAVLink** protocol.
- Designed and built the Controls Page and Mission Report Page for the Ground Control System with a **React Typescript** Frontend, and a **Go** Backend, to visualize flight telemetry and change flight parameters.

Engineering Manager

Sept. 2024 – Present

CSES Open Source

San Diego, CA

- Led a team of **5 engineers** to create an finance app for UCSD students using **React Native**, **Node with Express.js** and **PostgreSQL**.
- Collaborated with product and design teams to define project scope and establish technical requirements.
- Designed key features as a full-stack engineer, delivering a seamless frontend user experience and a scalable backend architecture.

Front-End Development Lead

Jan. 2024 – Oct. 2024

Triton Engineering Student Council

San Diego, CA

- Led a team of **3 developers** to redesign the main website for TESC with **React Typescript**, **SCSS**, and **Springboot**.
- Proposed and developed an Internal Management Portal, using React, Springboot and a **PostgreSQL** relational database.

Product Development Intern

Jun. 2020 – Nov. 2020

Sirusti Technologies Singapore Pte Ltd

Singapore, SG

- Assisted the product development team in designing the student portal for IGCSE students to practice MCQ papers.
- Built an automated past paper uploading script in Python.

PROJECTS

CNN Stock Prediction/Trading Algorithm | Python, TensorFlow, Keras

Mar. 2024

- Built a Convolutional Neural Network using **TensorFlow**, to predict the short-term behavior of any given stock with **71% accuracy**.
- Optimized model hyperparameters using **Keras** Hyperband Tuner to enhance prediction accuracy.
- Integrated the trained CNN model into a trading system for automated decision-making, conducting thorough backtesting to evaluate its effectiveness.

Stock Trader Bot Dashboard | NextJS, Firebase, Tailwind CSS

Dec. 2023

- Designed and developed a **NextJS** web app to visualize and monitor the performance of a Python trading bot.
- Integrated a **Firebase** Database to retrieve logs, order status, and modify trading parameters using a control panel.

Triton2Shop - E-commerce website | React, Node.js, SQLite

Dec. 2024

- Developed a second hand e-commerce platform exclusively for UCSD students
- Led team of 6 people following Agile methodologies such as sprints, standup meetings, and retrospectives
- Enforced code quality and style via a **CI/CD** pipeline on GitHub Actions

Snake AI | Python, Pytorch

Jun. 2023

- Developed a reinforcement learning model using **Pytorch** that improves iteratively in the classic snake game.

ACTIVITIES AND LEADERSHIP

Co-President

Jun. 2024 – Present

Triton Engineering Student Council

San Diego, CA

- Managed board of **30+** in organizing events, outreach, and socials for the entire engineering student body at UCSD.
- Coordinated logistics for an engineering showcase and a career fair, reaching **1,000+ attendees** combined and facilitating interdisciplinary collaboration and career opportunities for students.

TECHNICAL SKILLS

Languages	C, C++ , ARM Assembly, System Verilog, Python, Java, Go, Javascript, Typescript, HTML/CSS, Bash, MATLAB
Technologies	React, NextJS, Node.js, Flask, JUnit, Material-UI, FastAPI, Tailwind CSS, Firebase, Unity
Dev Tools	Docker, Linux, Git, Pandas, Pytorch, TensorFlow, Keras, AWS - Amplify, Route 53, EC2, S3, Lightsail