Tavasya Ganpati

San Francisco/Los Angeles, CA

github.com/Tavasya

Education

San Francisco State University

May 2026

Bachelor of Science in Computer Science

San Francisco, CA

Mountain View, CA

Experience

AI/ML Intern Syncopation AI

June 2024 - August 2024

• Developed AI models for 24/7 elderly care assistance to detect preconditions and improve response times.

- Created computer vision applications using OpenCV, YOLO, Roboflow, and implemented via Nvidia edge devices.
- Utilized Python, LangChain, and open-source models for programming and model orchestration.
- Custom trained vision models with Hugging Face, UNSLOTH, PEFT, LoRA, and QLoRA.

Coding Instructor

March 2024 - June 2024

The Coder School

San Francisco, CA

- Taught 10s of one-on-one lessons to k-12 students in Python, Java and Scratch.
- Led an advanced hands on, Python programming curriculum, integrating Raspberry Pi applications to enhance interactive learning and real-world problem-solving.
- Developed and instructed a Java programming course, emphasizing algorithmic thinking and software development principles.

Project Developer

March 2024 - May 2024

San Francisco State University

San Francisco, CA

- Collaborated with Professor Jonathon Jacobson and a team of 5 to develop an innovative Discrete Math educational tool aimed at enhancing learning for college students.
- Designed and implemented interactive questions and problem sets using Python, leveraging Flask for the backend infrastructure to ensure seamless user experience.
- Conducted user testing and gathered feedback from 35 undergraduate students to refine and improve the tool's effectiveness and usability.
- Integrated advanced data analytics to track student progress and adaptively modify content to better meet learning objectives.

Software Intern/Head Instructor

June 2023 - August 2023

CodeNinias

Northridge, CA

- Instructed over 100 students in Javascript, Java, Python, Lua, Scratch, and Unity.
- Developed over 20 different Minecraft mods, and 10 Roblox games using Lua and MCreator
- Led 5 week long intensive camps to teach students specific fields such as Lego Robotics with Python, 3D Printing, and MakeyMakey

Projects

MyQuizzAi | Typescript

August 2024

- Developed MyQuizzAI, a full stack web app for generating quizzes from uploaded documents using typescript.
- Used Next-auth for Google sign-in implementation and Stripe for payment and subscription services.
- Designed a modern, responsive UI with Shaden UI and managed data tables with Tanstack.
- Integrated OpenAI and Langchain for AI-driven quiz generation.
- Utilized Drizzle for ORM and PostgreSQL hosted on Supabase for database management.
- Deployed the application on Vercel, achieving over 20 active users in the first month.

Gym Rep Tracker | Python

April 2024

- Developed a Gym Rep Tracker using MetaMotion watch data, processing and cleaning sensor data with Pandas, NumPy, and LowPassFilter, and applying PCA and outlier removal techniques like IQR, Chauvenet's Criterion, and LOF.
- Visualized data and model performance using Matplotlib and Seaborn, generating automated reports for detailed analysis.
- Trained and evaluated models including Random Forests, KNN, Decision Trees, Naive Bayes, and Neural Networks using GridSearchCV, k-fold cross-validation and Scikit-learn, achieving high classification accuracy.
- Finalized a Random Forest mode with a 98% accuracy, refined through confusion matrix analysis to minimize misclassification of similar exercises.

Technical Skills

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

Libraries/Frameworks: ReactJs, NodeJs, Pandas, NumPy, OpenCV, MatPlotLib, Flask, Scikit-learn, Seaborn

Developer Tools: VS Code, Unity, Git, IntelliJ