Tavasya Ganpati

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EDUCATION

San Francisco State University   **Expected Graduation: May 2026**
Bachelors of Science in Computer Science
GPA: 3.8/4.0, Deans List Scholar: 2022-2023, 2023-2024
Relevant Coursework: Programming Methodology, Object Oriented Programming, Discrete Math, Data Structures and Algorithms, Machine Structures, Linear Algebra, Web Development, Probability & Statistics, Software Development, Analysis of Algorithms

EXPERIENCE

Software Engineering Intern   Mountain View, California
Syncopation AI   June 2024 - August 2024
- Increased model detection accuracy from 85% to 95% by finetuning custom vision models with Parameter-Efficient Fine Tuning
- Boosted inference speed from 30 to 60+ FPS on Jetson Nano using NVIDIA TensorRT with PyTorch Automatic Mixed Precision
- Processed 10,000+ images using YOLO and Langchain to power real-time pose detection across 30+ elder-care facilities

Software Development Educator   San Francisco, California
The Coder School   January 2024 – June 2024
- Educated over 50 K-12 students teaching one-on-one lessons in Python and Java and created 12+ course curriculums
- Developed 20+ industry projects such as a Cache Manager and a Graph-Based Recommendation System for hands-on learning
- Collaborated with student to create a mobile app for wildfire detection, which won 2024 Congressional App Challenge

Computer Science Instructor   Los Angeles, California
CodeNinjas   January 2022 - July 2023
- Instructed over 200 students and led 10 intensive camps in front-end and game development with JavaScript and Unity
- Implemented and taught to build over 15 functional LEGO Robots for interactive showcase programmed in Python
- Produced over 30 different Minecraft mods and Roblox games for student interactive lessons with Mcreator and Lua

ACTIVITIES & PROJECTS

Secrete Math | San Francisco State University   San Francisco, California
Full Stack Web App   August 2024 – Present
- Built a full-stack app in collaboration with SFSU professor, used by over 90 students, with TypeScript, ReactJS, NodeJS, and Supabase as a testing and practice system featuring almost 1,000 custom-generated questions and visual aids
- Supports 100's+ course material managed with a PostgreSQL database to securely store user data and support authentication

Perception | YCombinator x Supabase Hackathon (1st in Track)   San Francisco, California
Full Stack Web Application (tryperception.vercel.app)   November 2024
- Received 1st out of 150 teams in 42 hours for product concept: AI Research Database, aggregates data through Open-Access APIs
- Optimized to sustain sub-0.6s search rates by leveraging vector embeddings and semantic search capabilities, integrated with PostgreSQL and Supabase

Griffin | Meta's Llama Impact Hackathon (2nd in Track)   San Francisco, California
Internal Software Tool   October 2024
- Achieved 2nd out of 228 teams in 72 hours for detection software, flags invalid payments from banks to deceased individuals
- Developed an AI model with 86% accuracy with Scikit-learn to identify anomalies and trends in personal data

SF Hacks | Association of Computer Machinery @ SFSU   San Francisco, California
Software Developer (sfhacks.io)   January 2024 – April 2024
- Built a full-stack website for over 400 participants every year for the largest in-person hackathon in San Francisco
- Developed an AI-powered chatbot using CozeAI's LLM builder, serving as a San Francisco tourist companion with features like image analysis, text-to-speech, and personalized recommendations built with Python and OpenAI LLM

MyReps   Remote
Machine Learning Model (github.com/Tavasya/MyReps)   January 2024
- Developed a gym rep tracking system in Python (Pandas, NumPy) using MetaMotion watch sensor data, applying PCA, IQR, Chauvenet's Criterion, LOF, and a Low-Pass Filter for data preprocessing, and visualized results with Matplotlib and Seaborn
- Trained and compared 5 machine learning models, achieved 98% accuracy with a finetuned Random Forest model

SKILLS

Programming/Markup Languages: Python, TypeScript, JavaScript, Java, C++, HTML/CSS, SQL
Frameworks & Libraries: React.js, Express.js, Next.js, SciKit-Learn, Pytorch, Pandas, NumPy, Seaborn, Matplotlib, Langchain
Tools: PostgreSQL, Supabase, Firebase, AWS, Git, Github, Docker, Postman, Figma, Microsoft Office, Visual Studio Code, Google Colab