Pranav Putta

Bay Area, CA | pranavputta100@gmail.com | https://www.linkedin.com/in/pranavputta/ | https://github.com/pranavputta22

EDUCATION

Purdue University, West Lafayette IN Expected Graduation: May 2027
Bachelor of Engineering in Computer Engineering | Minor: Business Economics
Relevant Coursework: Data Structures, Algorithms, Software Engineering, Deep Learning, Electrical Engineering, IC Design

SKILLS

Software: Python · Java · Javascript · HTML · PHP · C · C++ · SQL · AWS · Git · Bash · MATLAB · TensorFlow · CSS

WORK EXPERIENCE

Undergraduate AI/ML Researcher - Purdue University October 2023 - Present

- Working with Professor Xiaokang Qiu and PhD students to research program synthesis with 2+ OpenAI API models
- Used Excel/SL databases, Marko Python parser, Python/server-side scripting (300+ lines), and prompt engineering to compare data analysis among LLMs and humans, measuring the capability of GPT in real-world applications
- Built algjorithm to improve comparative performance by around 80% for 10,250 test cases per program execution
- Gathering and organizing data through graphs and statistics with pandas in a research paper for publication

Software Engineer - ECELabs.io May 2025 - Present

- Using Python, JavaScript, MySQL to develop full-stack protocols for online FPGA tool to simulate lab experiments
- Adopted by industry leaders (AMD, Xilinx, Purdue, etc.) for professional workshops, and summer/college courses
- Improved data transmission speed with FASP to achieve around ~1 Gbps for AWS live production server
- Enhancing UI/UX with AngularJS and refactoring/testing code to maintain quality and robustness (1000+ lines)

LEADERSHIP

Electrical/Software Captain - Boiler Robotics August 2023 - Present

- Leading electrical and software teams of 20+ students to build/program an autonomous (RTOS) rover to compete in the University Rover Challenge - The Mars Society, placing 42nd overall internationally in 2025
- Applying telemetry for remote robot arm control, multimodal sensing/computer vision for autonomous navigation
- Using KiCad for PCB design and maintaining optimal BMS/wiring of embedded processors (Arduino Mega)
- Planning meetings to discuss goals and delegate tasks accordingly, allocating a $20,000+ budget

PROJECTS

PulmoAI September 2024

- Top 0.6% hackathon project that uses NVIDIA AI Workbench to help physicians diagnose/predict lung cancer
- Used PyTorch Densenet to train the model with 1000+ CT scans, reaching up to 98% accuracy in image detection
- Analyzed biometric dataset of 1000+ entries to achieve 98% accuracy with Random Forest Model from Sklearn
- Built health chatbot with LLM from Ollama and NVIDIA CUDA, integrated with Gradio app for a web interface

OrgoMap May 2025

- Developed chatbot, deployed as mobile app through Swift, to solve complex image-generation ochem problems
- Fine-tuned Gemini API through Google AI Studio with custom-built vector databases and 20000+ JSON files, implementing data validation and processing tools, including dbt and Apache Spark, respectively
- Utilizing RDKit and ChemDraw API for 2D/3D SMILE images, reporting image generation speeds under ~10 s

Prepsify May 2025

- Created website that simulates mock live video technical interviews with AI agent, providing an interactive system
- Built a RAG compiled of common Q&A and behaviors/patterns from various industries, while using OpenAI GPT-4o, Whisper API, D-ID API, DeepFace, Golang, to analyze speech and video inputs and tailor responses
- Working towards beta deployment, with initial controlled testing revealing ~80% user satisfaction