Pradyun Narkadamilli

pradyun2@illinois.edu | 408-368-2638 | https://pradyun.tech

Education

University of Illinois Urbana-Champaign, B.S in Computer Engineering exp. 2025
Current Coursework: Digital Systems & FPGA Lab, Analog Signal Processing, Discrete Structures, Differential Equations
Relevant Coursework: Computer Systems & Programming, Intro to Electronics, Comp. Linear Algebra, Physics E&M
GPA: 4.0/4.0

Professional Experience

Student Researcher, WaggleNet 2021 – Present | Champaign, IL
- Led 7-person team designing computer vision software for motion tracking/prediction with OpenCV/Tensorflow
- Designed data schema and implemented data pipeline using AWS Cognito user auth and Dynamo NoSQL database
- Created datalogging software to aggregate data from independent Raspberry Pi Zero data collection nodes

Captain, VEX Team 3304R 2019 – 2021 | Dublin, CA
- Designed robot based on the constraints of game - was primary builder and programmer
- Developed motion control software with PID and Odometry algorithms using OkapiLib C++ libraries
- National and State Championship Qualifiers as first year team of 5 people

Project Work

Kami
Uses Machine Learning to scan and summarize text documents with cross-platform support
- Uses PyTesseract OCR engine to read text from images, then uses NLTK model to summarize text
- Leveraged Angular.js framework to make a web application, and Flutter to make a cross-compiling native application
- Set up/administrated EC2 Linux server on AWS with Nginx and Gunicorn to serve backend Flask API

Vital
Uses soil moisture, temperature, and humidity data to inform gardeners of plant health
- Collected environment and soil data using Arduino, passed data to a Raspberry Pi to sync data with Firestore database
- Interfaced and visualized this data with a website, Android App, iOS app, and Google Assistant Routine

Awards

Dean's List, Grainger College of Engineering
Ranked within top 20% of students in the Grainger College of Engineering.
Fall 2021 - Present

Winner, Samsung Solve for Tomorrow, Samsung 2020
Devised an information net that took temperature, smoke, and humidity data from arduino 'nodes', then used ML to detect/predict the path of a fire. Earned $100,000 in prizing.

National Quarterfinalist, VEX Robotics CREATE US Open 2019
Reached the Round of 16 at VEX national championships among 11,000 US-based VEX teams.

Skills

Programming Languages
Assembly, Python, Java, Rust, C, C++, JavaScript

General
Linux Systems, Git/Github

Hardware
KiCAD, Arduino, Raspberry Pi, ESP32, Altera Quartus, Fritzing, PlatformIO

Languages
Assembly (LC-3), Python, Java, Rust, C, C++, JavaScript

Software
Firebase, AWS, React, Flask, Next.js, Flutter, Numpy