Pradyun Narkadamilli

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Education

University of Illinois Urbana-Champaign, B.S in Computer Engineering exp. 2025

Relevant Coursework: Digital Systems & FPGA Lab (In Progress), Analog Signal Processing (In Progress), Computer Systems and Programming, Discrete Structures, Thermodynamics, Quantum Physics, Computational 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

Programming Frameworks
OpenCV, PlatformIO, React, Flask, Next.js, Actix-web

Tools/Platforms
Firebase, AWS, Linux Systems, KiCAD, Altera Quartus, Git