

Dhillon Patel

Fort Wayne, IN | [LinkedIn](#) | [Github](#) | dhillonpatel21@gmail.com | [260-450-5921](tel:260-450-5921) | <https://dhipatel21.github.io/>

Education

University of Michigan

Ann Arbor, MI

Bachelor of Science in Computer Engineering | GPA: 3.9

August 2020 - May 2024

Relevant Courses: Introduction to Embedded Systems, Computer Vision, Data Structures and Algorithms, Embedded Control Systems, Autonomous Robotics Design Experience

Awards: Summa Cum Laude, James B. Angell Scholar, Constance B. Mathias Engineering Scholarship Award, Richard Earhart Scholarship Award, Dean's Honor List, University Honors, William J. Branstrom Freshman Prize

Work Experience

Cisco Meraki

San Francisco, CA

Firmware/Features Software Engineer Intern

September 2023 - December 2023

- Designed and integrated new testing pipelines, accelerating development process for team's codebase using Jenkins and Gerrit
- Added code coverage to native test recipes, improving effectiveness of tests by 30% and delivering higher-quality software through CMake, Makefiles, Autotools, Ruby scripts, and BitBake recipes in Yocto

Raytheon Intelligence & Space

Fort Wayne, IN

Electrical and Hardware Design Engineer Intern

May 2022 - August 2022

- Collaborated with senior engineers to restructure server rack designs and devise block diagrams of devices illustrating interconnectedness in 5+ server racks, providing customers valuable structural insights
- Developed and delivered presentations about multiple projects surrounding block diagrams, and power and cost budgets, enhancing project visibility and understanding among stakeholders

Projects

RGB-D Semantic Segmentation

- Trained multiple semantic segmentation models, demonstrating improved accuracy with NYUv2 dataset after adding a depth channel; presented research paper to faculty
- Programmed project in Python with PyTorch library

Concussion Detector

- Researched and developed a wearable IMU-based neck/head sensor for better prediction and diagnosis of concussions/whiplash injuries in athletes
- Created a touchscreen watch to provide meaningful data in real time with STM32 microcontrollers, UART, I2C, SPI, and ported drivers in C

Autonomous Marco Polo Robots

- Implemented pursuit-evasion behaviors for two differential-wheeled robots using Python and C++, integrating LCM and OpenCV for real-time audio and visual tracking
- Configured and optimized robots' firmware and hardware with Raspberry Pi 4, UMA-8 directional microphone, wide-angle camera, and April Tag fiducials, achieving autonomous navigation and target acquisition for dynamic and cluttered environments

Skills

- C/C++, JavaScript, Python, HTML5, CSS, Perl, Groovy, ARM Assembly, Verilog, CAN, Git, Jenkins, Gerrit, Linux, Docker, Yocto, statistical analysis, project management, communication

Activities

M-STARX

U of M, Ann Arbor

Treasurer

January 2022 - May 2024

- Oversaw and trained 10+ members in the programming sub-team, utilizing Raspberry Pi 4, ROS, and C++
- Elected as Treasurer Officer to manage finances required for developing upper and lower body exoskeletons