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

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 and manage finances required for developing upper and lower body exoskeletons