

Dhananjay Patki

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Skills

Languages: C, C++, JavaScript, Python, Rust, HTML/CSS

Tools: Node.js, React, React Native, Linux, GCP, Firebase, MongoDB, Visual Studio

Experience

IOT Sensor Development Intern, MedVita Inc. | April 2020 – September 2020

- Integrated data from custom PCBs & AVR with **Google Cloud Platform** & **Firebase**
- Implemented a host-device communications system, **increasing communication speed** over previous methods by **700%**
- Combined host-device and host-cloud communications with **Node.js** server
- Created multiple implementations of cloud-device communication in **Python, Node.js, & Rust**

Data Science Analytics Team, STEM Fellowship | March 2018 – Present

- Created and delivered data science workshops in **R** and **Python** to high school and undergraduate audiences
- Designed a **Slack bot** to automatically pair students with mentors using **Python**, reducing workhours by **90%**
- Curated and **cleaned datasets** from various sources to allow for easier analysis by student teams
- Provided mentorship to **100+** undergraduate and high school students in analyzing and visualizing data

Projects

COVID Connections | [Hack The North ↗](#)

- Created a full-stack android app using **React Native** to allow users to check the COVID status of their social group
- Developed **REST API's** to communicate with a **MongoDB** database using **Express.js**
- Implemented a custom settings page, allowing users to change their anonymity in their social group

Smart Garden | [Automated Plant Care System ↗](#)

- Created basic video livestreaming using **Socket** and **PiCamera** libraries on a **Raspberry Pi**, allowing users to view their plant from anywhere
- Implemented brightness detection using **Pillow** & Python to determine plant lighting and health
- Integrated Python brightness detection with Node.js Server & **MongoDB** database

Cli-Mate | [2020 Youth Central Hackathon Best Technology Award ↗](#)

- Created a service using **Twilio's** WhatsApp API and Python to offer users daily challenges
- Tracked user statistics and sent challenges via Flask server

Extracurriculars

Zero Experience Program (Quantum Valley Problem Pitch Competition Semifinalist)

- Collaboratively produced a report and presentation on human error in **cybersecurity**
- Explored issues with firewalls, passwords, and IT administration, and presented these findings to **industry experts**

Waterloo Engineering Endowment Foundation Representative

- Allocated funding to various student and faculty initiatives across the University of Waterloo
- Created an **online voting system** to allow for easier facilitation of WEEF activities

Education

University of Waterloo, Candidate for Bachelor of Software Engineering (2020-2025)

