Harsh Patel

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EDUCATION

McGill University Sep 2017 - May 2021
Bachelor of Science | Honours Computer Science and Biology | cGPA 3.8/4.0 Montréal, QC

- J.W McConnell Scholarship Recipient (Entering average of 95+)
- Tomlinson Engagement Award for Mentoring and Engagement

EXPERIENCE

Everyday Robot Project at X, formerly Google[X] *x.company* May 2020 – Aug 2020
Software Engineering Intern *Python | Typescript | Simulation | Machine Learning* Mountain View, CA

- Designed and implemented from end-to-end a real world capability for the robot.
- Created a data generation pipeline to randomize, create and visualize over 10,000 training examples.
- Built a user interface using Typescript to add interactive functionality for the capability.
- Continuously developed the pipeline to help the model out-perform engineered solutions.

Google *chromium.org* May 2019 – Aug 2019
Engineering Practicum Intern *C++ | Python | Java | Android* Waterloo, ON

- Reduced the binary size for Chrome by over 100 kB by compressing and reducing read only data.
- Created solutions to runtime crashes and build failures that blocked the release of Chrome Canary.
- Improved the incremental build time for Chrome on Android by 10 seconds.
- Changed implementation of the build system to allow for a new whole program optimizer.

HackMcGill *mchacks.ca* Apr 2019 – May 2020
Software Developer Backend Lead *Typescript | React | Express | SQL* Montréal, QC

- Led a team of 3 developers to improve and update the McHacks website to support over 1000 hackers.
- Facilitated in the transition from the MEAN stack to the MERN stack to better support new developers.
- Implemented solutions to existing bugs on the hackerAPI and added new sought after features.

PROJECTS

Personal Website *Node.JS | Express | PUG | SQL | Markdown* Sep 2017 - Present
www.mrharshpatel.com

- Developed a live website that showcases my notes and other projects.
- Designed and implemented an SQL database to store and retrieve notes in order to optimize loading.

BREEZE - Covid19 Ventilator *C++ | Arduino | React | Material UI | Sockets* Apr 2020 – May 2020
github.com/breeze-ventilator

- Top 9 Semi Finalists in the $200,000 Code Life Ventilator Challenge.
- Created a low cost ventilator using custom 3D printed fans, arduino and a tablet screen.
- Implemented medical grade software practices for the ventilator controls and a user friendly React UI.

MILO - Mind Controlled Wheelchair *Python | Node.js | HTML | CSS | Android* Sept 2018 – May 2019
mcgillneurotech.com

- Achieved 1st Place in the NeuroTechX Open Challenge 2019.
- Created a mind controlled wheelchair that moves based on realtime data collected from an OpenBCI.
- Developed a web dashboard that collected, processed and displayed EEG data and metrics at a rate of over 250 samples per second.
- Built a location tracking and stress detection app for caretakers to monitor users of the wheelchair.