Abilarsh **Vijiananthan**

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Skills

Languages	Python, Java, C/C++, HTML, CSS, JavaScript, MATLAB
Tools and Programs	Git, Arduino, Linux, OpenCV, Android Studios, Inventor, Solidworks

Experience

Xerox Research Centre of Canada — *Mississauga, Ontario*
ELECTRONICS PRINT LAB TECHNICIAN — *Jul 2016 - Aug 2016*

- Prepared and tested substrates in the electronics print lab
- Recreated NFC Module in Solidworks for printing
- Optimized toolpaths to reduce print times by 20%
- Developed UI for capacitive touch interface using Arduino and C#

Projects

Smart Unlock (UoftHacksVI) — *Toronto, Ontario*
HTTPS://GITHUB.COM/ABILARSHVIJI/UOFTHACKSVI — *Jan 2019*

- Set up SmartCar API backend using Python and Flask to handle unlocking the vehicle, used ngrok to tunnel localhost to the web
- Built Android App as front end for allowing the user to authenticate face and allow user to unlock the vehicle
- Utilized Microsoft Azure's Face API (Face Verification) to verify facial features

Boston Sidewalk Ratings (BostonHacks) — *Boston, Massachusetts*
HTTPS://GITHUB.COM/ABILARSHVIJI/BOSTONHACKS2018 — *Nov 2018*

- Gathered 400 images for training data by scraping Google Images using Python library
- Trained image recognition model using CustomVision.ai
- Tested model with images gathered from the Google StreetView API, running them through a model, and outputting the results to a webpage

GIGO Robotic Arm — *Hamilton, Ontario*
ENGINEER 1P03 - FINAL PROJECT — *Sept 2017 - Dec 2017*

- Created 4 bar linkage arm to lift garbage cans for client who has cerebral palsy
- Utilized linear actuator, Arduino, joystick, and 3D printed components to develop arm

Extracurriculars

McMaster Baja Racing — *Hamilton, Ontario*
DATA ACQUISITION TEAM — *Sept 2017 - Apr 2018*

- Implemented and maintained sensors for the vehicle
- Worked on updating radio system between the driver and the pits

Team 4308: Absolute Robotics — *Mississauga, Ontario*
VICE-PRESIDENT — *Sept 2013 - Jun 2017*

- Managed FIRST Robotics team of 60 students
- Handled team budget of $20000 for robot and competition expenses
- Designed robot in Autodesk Inventor within a 6 week period
- Troubleshot software issues within the drivetrain using Java

Education

McMaster University — *Hamilton, Ontario*
B.ENG IN ELECTRICAL ENGINEERING, 2ND YEAR — *Sept 2017 - Present*

- Expected Graduation: Spring 2021

Online Courses
LYNDA.COM

- Audited courses on OpenCV, JavaScript, HTML, and CSS