

# SOFTWARE ENGINEERING

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# **SKILLS**

Languages: Python, Java, C++, SQL, MATLAB, JavaScript

Libraries/Frameworks: NumPy, Android SDK, Jinja, Flask, Webapp2, AngluarJS, React, TensorFlow

Datastores: PostgreSQL, SQLite, MySQL

Other: Git, Arduino

# **EXPERIENCE**

#### **MEDCAN**

#### Data Science Intern, CRM · Jul 2015 to Aug 2015 · Toronto, ON

- Created artificial neural networks in Python to analyze past customer data and predict churn
- Increased accuracy of previous model by 32%
- Used SQL to pull data into xlsx files and employed Openpyxl to read from those files
- Wrote excel macros in VBA to automate processes and save company time

#### **MOZILLA**

# Internet Security Researcher · Sep 2014 to Feb 2015 · Toronto, ON

- Developed a privacy system to spread internet privacy awareness and educate youth in online security
- Researched tech areas such as encryption, IP tracing, and targeted ads to co-design 10 live badges
- Created a plan for youth to earn badges by integrating desirability, correctness, and informativeness

#### **FRC ROBOTICS TEAM**

#### Programming Lead · Sep 2011 to May 2015 · Mississauga, ON

- Organized the architecture of the command system for 4 multi-functional 120 pound robots
- Utilized LabVIEW and C++ Windriver to write code for the robots to run autonomously and manually
- Taught and managed a team of coders to produce the codebase within a timeframe of 3 to 4 weeks
- Robot functions included shooting basketballs into hoops and climbing 10 foot tall jungle gym constructs
- Won regionals of 1000+ people and led team to world championships where the team made the playoffs

#### KIDS LEARNING CODE

#### Mentor · Aug 2014 to Dec 2014 · Toronto, ON

- Led and engaged in educational and developmental activities with up to 10 youth during a day
- Taught HTML, CSS, and JavaScript to youth by solving code issues and going through examples
- Inspired youth with examples from personal software development including games made with C++
- Won the mentor award for making a positive impact

# **PROJECTS**

## Sleephacks

- Created a web service that allows travelling hackathon hackers to stay with nearby locals
- webapp2, Python, Google Cloud Platform, App Engine, HTML/CSS/JavaScript

#### WatWhenWhere

- Designed and implemented back end collision and parsing algorithms for a web service that allows UWaterloo students to compare schedules with friends
- Python, PHP

# Random Maze Generator

- · Constructed a random maze generator that produces a random solvable maze with given dimensions
- Python, Turtle

#### Streamsorter

- · Built an android app that gives users info about a student's co-op sequence, given their year of study
- · Java, Android Studio

#### Sentimizer

- Made a micro web app that does sentiment analysis on text to figure out if it's happy or sad
- Flask, Python, Google Cloud Platform, App Engine, HTML/CSS/JavaScript