SARTH FREY
SOFTWARE ENGINEERING STUDENT

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EDUCATION

University of Waterloo
Bachelor of Software Engineering 2020

EMPLOYMENT

Medcan, *Data Science Intern, CRM*, Toronto, ON   Jul 2015 - Aug 2015
• 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*, Toronto, ON   Sep 2014 - Feb 2015
• Formed a privacy badges system to spread internet privacy awareness and educate youth in how to stay secure online
• 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*, Mississauga, ON   Sep 2011 - May 2015
• Organized the architecture of the command system for 4 multi-functional 120 pound robots
• Utilized LabVIEW and the C++ Windriver Library to write modular code for both autonomous and manual operation of the robots
• Taught students to code and managed a team of coders to produce the entire 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 regional beating out thousands of people and led team to world championships where the team made the final stage playoffs

Kids Learning Code, *Mentor*, Toronto, ON   Aug 2014 - Dec 2014
• Led and engaged in educational and developmental activities with up to 10 youth during a day
• Helped teach HTML, CSS, and JavaScript to youth by solving code issues and going through specific examples
• Inspired youth with examples from personal software development including games made with C++
• Won the mentor award for making a positive impact

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

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 or vice versa
• 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

AWARDS

Software Engineering Entrance Scholarship, $5500

Euclid Math Contest Distinction, 90th Percentile

FRC Robotics Regional, 1st Place