

SARTH FREY SOFTWARE ENGINEERING STUDENT

CONTACT

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SKILLS

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

LIBRARIES/Frameworks: NumPy, Android SDK, Jinja, Flask, Webapp2, AngularJS, React, TensorFlow

DATABASES: 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

EXPERIENCE

Medcan

Toronto, ON

Data Science Intern, CRM

Jul 2015 to 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 excel files and employed Openpyxl to read from those files
- Wrote excel macros in VBA to automate processes and save company time

Mozilla

Toronto, ON

Internet Security Researcher

Sep 2014 to 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

Mississauga, ON

Programming Lead

Sep 2011 to 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

Toronto, ON

Mentor

Aug 2014 to 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

AWARDS

Software Engineering Entrance Scholarship, \$5500

Euclid Math Contest Distinction, 90th Percentile

FRC Robotics Regional, 1st Place

EDUCATION

University of Waterloo

Bachelor of Software Engineering 2020