

# SARTH FREY

SOFTWARE ENGINEER · DATA ENTHUSIAST · WEB DEVELOPER

✉ sarth.frey@gmail.com  
🌐 sarth.xyz  
☎ 647-979-4425  
in [ca.linkedin.com/in/sarthfrey](https://ca.linkedin.com/in/sarthfrey)  
🔗 sarthfrey

## EXPERIENCE

---

### MEDCAN

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

- Created artificial neural networks in Python to analyze customer data and predict customer churn
- Increased chance of correct prediction over the 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

### 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
- 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++

## AWARDS

---

FIRST Robotics · **First Place in Regionals** May 2015  
Won the finals match in competitions of 500+ people and proceeded to make playoffs in the world championships

University of Waterloo · **Euclid Math Competition Distinction** Apr 2015  
90th Percentile out of 18000+ global participants

University of Waterloo · **Software Engineering Scholarship** Jun 2015  
Selected from those admitted into the UW Software Engineering program to receive \$5500 based on academics and extracurriculars

## SKILLS

---

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

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

**Datastores:** PostgreSQL, MySQL

**Other:** Git, Arduino

## PROJECTS

---

### Sleephacks

- Created a web service that allows travelling hackathon hackers to stay with nearby locals
- webapp2, Python, Google 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

### Sentimixer

- Made a micro web app that does sentiment analysis on text
- Flask, Python, Google App Engine, HTML/CSS/JavaScript

## EDUCATION

---

University of Waterloo  
BSE Software Engineering 2020