Owen Brake

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Work Experience

Software Engineer — Summer 2019
Groupdesk — Toronto, ON

- Developed CRUD services, using Angular to remove user dependence on technicians
- Upgraded UI to Material Design using AngularJS and CSS to improve site appearance and improve usability
- Built Google Analytics system from the ground up, to better understand user behaviour and identify user priorities
- Automated front end QA using Go, Docker and chromedp to improve release efficiency and stability
- Reported and resolved bugs using Pivotal Tracker to improve user experience

Data Entry — October 2016 - November 2016
Liberty Metrics — Mississauga, ON

- Used Google Sheets and Excel to track hotel rooms for future analysis of data mining company

Umpire — May 2016 - August 2016
Mississauga Majors Baseball League — Mississauga, ON

- Managed conflicts on the field and mediated disputes over umpire rulings

Projects and Teams

Waterloo Formula Electric Team — September 2019 - Present

- Developing firmware for Wheel Speed Board using C and STM32Cube to collect and handle Wheel Speed data for data analysis and improved control
- Competing at Student Formula Electric competitions

Self Driving Go Kart Team — July 2019 - Present

- Designing and manufacturing gearboxes to allow motor control of steering
- Utilizing Arduino, motor controllers and RC radio to allow remote control of Go Kart.
- Developing computer vision and control software in OpenCV and Python

The 6ix Robotics — May 2018 - July 2019

- Founded private robotics team of 12 members and raised $15,000 from corporate and private sponsors including Deloitte, IBM, Mazda
- Developed autonomous and manual robot control using software motion control algorithms
- Designed and built robots to compete in VEX Robotics regional tournaments and the provincial championships against teams with $200,000+ budgets

PCHackers — May 2018 - May 2019

- Acquired various major sponsors to fund Canada's largest high school student run hackathon
- Negotiated with University of Toronto administration for venue fees, services and staffing to ensure the hackathon ran smoothly
- Managed food services to ensure that free nutritious meals were provided over a 24 hour period meeting all dietary restrictions
- Planned third party speakers, opening/closing ceremonies and various activities at the event to enhance the attendee experience
- Managed the judge selection including bringing in industry and education professions as well as oversight of the judging process to ensure a fair and objective process and the selection of the best project as winner

4659 Warrior Robotics — September 2015 - May 2017

- As president of club, managed over 100 members, ensured deadlines were met and promoted the sharing of skills and learnings across the club
- Qualified for and competed in the VEX Robotics World Championship in Louisville Kentucky against teams from across the globe including China, Germany and Nigeria
- Developed autonomous and manual robot control as well as developed skills in manufacturing

Skills

Programming Languages:	Java, Go, C/C++, Javascript, Python, LAMP Stack, Angular, Bash
Mechanical Design:	AutoCAD, Solidworks, Geometric Dimensioning and Tolerancing
Software:	Git, Docker, Excel, OpenCV, LaTeX, STM32CubeMX, PID Control
Electrical:	Soldering, Op-Amp Filtering, Function Generator and Oscilloscope Usage

Interests

Long Distance Running	Motorcycle Enduro Riding	Rock Climbing	Astronomy