

# Darren Li

Candidate for Bachelor of Software Engineering | University of Waterloo | Class of 2023



/li-darren



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/DarrenLi

## SKILLS

- Languages: Python, C++, Node.js, Javascript, Java, YAML, HTML, CSS, RISC-V, MIPS
- Tools: AWS, Docker, Jira, Git/Github/Gitlab, Confluence, VS Code, vim, SIPP
- Other Skills: Linux, Postman, VHDL, TortoiseSVN, Mercurial, Bitbucket

## EXPERIENCE

### Software Developer - Genesys, Markham, Ontario

Sept 2019 – Dec 2019

- Deployed and implemented AWS EC2 Auto Scaling and monitoring to our Docker Microservice to create a highly scalable and maintainable application, saving up to 70% in costs for particular regions
- Took ownership and integrated new features to Python crash reporting script that analyzed core files and graphed data via Matplotlib to automate manual gdb debugging
- Integrated new features to monitor EC2 instance health such as configuring CloudWatch alarms and dashboard management with the AWS SDK in Python for easy monitoring and alerts
- Developed AWS Cloud Formation templates in YAML that work across all AWS regions, allowing for easy and automated configuration during deployment

### Software QA Analyst - Sonova-Unitron Canada, Kitchener, Ontario

Jan 2019 – May 2019

- Initiated development of tool in Python which utilized Tkinter and XML parsing to drastically increase testing productivity up to 70%
- Implemented C# cross referencing algorithm using linked lists to drastically reduce manual verification
- Collaborated with developers to efficiently identify software bugs and document them in agile environment

### Assistant Coach - Thundercats Volleyball Club, Richmond Hill, Ontario

Sept 2017 – May 2018

- Led team warmup and drills; Ranked top 3 team in Ontario; Player management and lineup strategy

## PROJECTS

### EzCollab – (Node.js, JavaScript, HTML, CSS) ezcollab.lidarren.me

Mar 2020 – Present

- Developed online screen sharing service that allows for synchronous drawing (HTML canvas) on the video stream for easy collaboration with other web users
- Configured proxy for new connections via Nginx to establish a Socket.IO WebSocket connection to EC2 Instance Express server to track stream status and negotiate a WebRTC peer connection with the broadcaster

### Garage Door Recognizer – (OpenCV, Python)

Dec 2019

- Developed image processing algorithm using OpenCV to determine garage door state and send email/SMS accordingly via smtplib and Twilio libraries from a Raspberry Pi, reminding user to close any doors left open

### RehabiliNation – MakeUofT 2019 (2 category wins) (Python)

Feb 2019

- Utilized Arduino and IMU sensors to allow people with disabilities to play modern arrow key games

### BreadCrumbz – uOttawaHack 2019 (4<sup>th</sup> place overall) (Python)

Feb 2019

- Developed algorithm to integrate the delivery of surplus supermarket produce to homeless shelters into your commute by utilizing Google Maps nearby search, directions, and route APIs

## TEAMS

### Robotics

- Designed and led mechanical system operation/design of VEX robotics team; developed gameplay strategies
- Established and grew club to over 50+ members; helped secure over \$10,000 in funding

### Sports

- 2018 Athlete of the Year; 4+ years of volleyball and badminton; YRAA Gold, OFSAA Antique Bronze
- University of Waterloo Intramural Volleyball Team and Waterloo S.E.R.V.E volleyball club

## OTHER QUAL.

- Vision Youth Leadership Program (Duke of Edinburgh Award – Bronze); practiced team building and leadership skills, project management to plan hikes, and Toast Master presentation skills