

Darren Li

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



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SKILLS

- Languages: Python, C++, Java, JavaScript, SQL, YAML, HTML, CSS, R, RISC-V, MIPS
- Tools: AWS, Kafka, Jenkins, Avro, SNYK, Docker, Jira, Node.js, Maven, Spring Boot, Git, Confluence
- Other Skills: Linux, Bitbucket, IntelliJ, Postman, VHDL, TortoiseSVN, Mercurial
- 3X Term Dean's Honour List (Engineering)
- Courses: Data structures, Software Engineering Principles (OOP), Database Systems

EXPERIENCE

BACKEND/DEVOPS DEVELOPER (SPEECH RECOGNITION CONNECTOR) - GENESYS, MARKHAM Sept 2020 – Current

- Led the development and design of a new Kafka topic and producer to transmit over 20000+ transcription events per minute, allowing other services to subscribe and receive transcribed audio messages
- Designed Kafka producer infrastructure to publish over 40000+ Kafka events per minute generated from over 1000+ calls, allowing for other microservices to show real time text to speech information
- Deployed Kafka consumer to consume various state change events, allowing our clients to communicate and notify our service about any important updates
- Integrated SNYK Security Platform into Jenkins pipeline, reducing dependency vulnerabilities and attacks

DEVOPS/SOFTWARE DEVELOPER (VOICE PLATFORM) - 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 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 Python tool that utilized Tkinter and XML parsing, increasing testing speed by 70%
- Implemented C# cross referencing algorithm using linked lists to drastically reduce manual verification

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 – uOttHack 2019 (4th 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