Darren Li

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

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SKILLS

- <u>Languages</u>: **Python, C++, Java**, JavaScript, **SQL**, YAML, HTML, Groovy, RISC-V, VHDL, MIPS
- <u>Tools/Frameworks:</u> **AWS**, **Kafka**, **Spring Boot**, **Node.js**, **Jenkins**, Git, Maven, Docker, Junit, Mockito, Hystrix, Resilience4j, Express, Sumo Logic, Avro, SNYK
- Other Skills: **Linux**, Bitbucket, IntelliJ, Jira, Teams, Confluence, Postman
- Excellent leadership and teamwork skills (Led development of features, captain of sport team, coaching)
- 3X Term Dean's Honour List
- Courses: Data structures (93), Software Engineering Principles (OOP) (91), Database Systems (99)

EXPERIENCE

BACKEND DEVELOPER (SPEECH RECOGNITION CONNECTOR) – GENESYS LABORATORIES   Sept 2020 – Dec 2020

- Led the development of enabling high throughput publishing of text transcription results to other services, transmitting over 40000+ Kafka events per minute, by designing a **Java** concurrent task scheduler
- Reduced pre-processing time of transcription tasks by 50%; designed multi-level cache for repetitive API calls
- Implemented **Kafka** consumer client to allow other services to communicate and send notifications about configuration changes within milliseconds, by consuming custom state change events
- Integrated SNYK Security Platform service to scan for security issues every **Jenkins** pipeline deployment, eliminating 30+ possible dependency vulnerabilities and attack types

DEVOPS DEVELOPER (VOICE PLATFORM) – GENESYS LABORATORIES   Sept 2019 – Dec 2019

- Implemented **AWS EC2** Auto Scaling and monitoring for Docker Microservice to create a highly scalable and maintainable application, saving up to 70% in costs
- Took ownership of automated gdb crash debugger **Python** script that analyzed AWS core dump files and graphed data with Matplotlib, increasing reporting speed by 400%
- Integrated **CloudWatch** dashboard and alarms for easy monitoring and alerts, tracking application health such as CPU and memory usage; configured with AWS SDK for Python
- 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   Jan 2019 – May 2019

- Initiated development of **Python** tool to modify configuration XML files that increased testing speed by 70%
- Implemented C# script to update outdated language files, reducing manual verification by over 400%

PROJECTS

EzCollab – (Node.js, JavaScript, HTML, CSS)   ezcollab.lidarren.me   Mar 2020

- Developed online screen sharing service to synchronously draw (HTML canvas) on a screen share video stream and easily collaborate 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, with over 90% accuracy, and notified users of any doors left open via email/SMS using a Raspberry Pi

RehabiliNation – MakeUofT 2019 **(2 category wins)** (Python)   Feb 2019

- Enabled people with disabilities to play modern games by utilizing Arduino and IMU sensors to create controller

BreadCrumbz – uOttaHack 2019 **(4th place overall)** (Python)   Feb 2019

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

TEAMS

Robotics   2018

- 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 volleyball and badminton; YRAA Gold, OFSAA Bronze, MVP; Intramural