

Basil Mahmood

SOFTWARE ENGINEER · FULL-STACK DEVELOPER · CODING ENTHUSIAST

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Experience

Full-Stack Software Engineer

Toronto, Canada

SPECIAL OLYMPICS ONTARIO

April 2018 - April 2021

- Primary engineer working on the Healthy Communities Web Platform
- Developed the front-end using the VueJS framework alongside HTML, JavaScript and CSS
- Developed a RESTful API using a NodeJS server with the ExpressJS framework
- Developed and maintained a MySQL database
- Developed and maintained the DevOps infrastructure using Github Actions + Docker
- Developed and maintained the Cloud Infrastructure on Microsoft Azure
- Conducted the hiring process for finding new interns, from the screening to the onboarding

QA Engineer Intern

Toronto, Canada

CHEFHERO

May 2019 - Aug 2019

- Worked on building the integration testing suite using the k6 framework (written in JavaScript)
- Improved code quality by making existing tests atomic
- Created and improved jenkins pipelines used for running integration tests
- Found and documented issues in the backend python code
- Performed manual QA via postman and the front-end directly

Projects

Software Lead

Toronto, Canada

ENGINEERING CAPSTONE (ENG4000)

Sept 2020 - April 2021

- Software Lead for developing a web-based energy management system (EMS)
- Developed a front-end using React
- Developed a RESTful API using Node.js + Express
- Developed an extensive Python simulation, which simulates several energy systems including Battery-Energy Storage Systems, Multi-Unit Residential Buildings, and EV chargers + their car-flow
- Developed a powerful Python machine-learning function using sklearn, which predicts future EV charger usage based on historic data
- Developed the cloud-infrastructure using Docker + AWS services including EC2, ECS, ECR, S3, CloudFront, and CodePipeline

Skills

Front-End Development	VueJS (Vuex, Vue CLI, Vuetify), ReactJS (Redux, MaterialUI), HTML, JavaScript, TypeScript, CSS
Back-End Development	Node.js/ExpressJS, Python (functional and object-oriented), RESTful APIs
Database Development	SQL (MySQL, Postgres), NoSQL (MongoDB)
Cloud Infrastructure	AWS (EC2, ECS, ECR, S3, CloudFront, CodePipeline), Azure (App Service, Container Registry), Google Cloud
DevOps	Docker, CI/CD pipelines (Github Actions, Jenkins)
QA and Testing	Postman, k6, Mocha + Chai, Selenium
Machine Learning	sklearn + pandas, MATLAB
Other Languages	C, C++, Java, Golang, Bash, Verilog, VHDL

Education

Bachelor of Engineering (BEng) in Electrical Engineering

Toronto, Canada

LASSONDE SCHOOL OF ENGINEERING, YORK UNIVERSITY

Expected April 2021