MICHAEL LI

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SKILLS

Languages: Java, Go, HTML/CSS/JavaScript, Python, Bash, SQL, C
Technologies: React, Node/Express, mongoDB, Nginx, Git, Hadoop, PostgreSQL, Unix systems

EXPERIENCE

Jr. Automation Developer - Canadian Tire Corporation   *May - Aug 2021*
Java, Python, HTML/CSS, Javascript, PostgreSQL, Hadoop Hive, Git

- Developed and deployed 5 new releases for critical software bots, increasing reliability and efficiency by 200%.
- Overhauled old documentation and introduced a new standard which includes visual color coded process flows.
- Facilitated several department wide meetings discussing advancements in AI technology and life satisfaction.
- Integrated software robot processes into a Hive data lake and shared corporate network drives.
- Coordinated crucial cross-department file generation processes between the Roboworks department and the Network Performance Team.
- Diagnosed and fixed 5 production issues regarding REST API and database connections, introduced improved logging and error tracing to make it easier to debug such issues.

Full stack Web Developer - Handrock Software Inc.   *Jul 2019 - Aug 2020*
Typescript, Express.js, Python, HTML/CSS, Javascript, MySQL

- Produced software architecture diagrams such as process flows and ER diagrams using UML.
- Established automatic updates to the database through execution of a Python script controlled by Cron.
- Constructed REST API endpoints to support web UI and future mobile apps.
- Created responsive front-ends using HTML, CSS and Javascript with AJAX to integrate with back-end systems.

PROJECTS

Backend Software Developer - **CampuSafe Go REST Infrastructure for React Native App**   *Sep 2021*
Go, Bash, React, Nginx, CockroachDB (postgres), Unix, Systemd

- Developed a Go based REST API hosted on a DigitalOcean Ubuntu droplet to interface React Native app with CockroachDB.
- Used Javascript Fetch API to send asynchronous HTTP requests to the backend API endpoints.
- Used Mux to handle request routing for each REST API endpoint and integrated CockroachDB using GORM for ORM.
- Daemonized the Go process and controlled it via Systemd configurations and Bash scripts, configured Unix users for security.
- Configured Nginx as a reverse proxy to port forward requests to the service and to act as a load balancer.

Software Developer - **Git Voice Google Assistant VS Code Integration**   *Jan 2021*
Typescript, Express.js, Git, Voiceflow, Ngrok

- Developed a voice controlled git plugin for VS Code using Voiceflow's REST API For Hack The North 2021.
- Built REST API endpoints in Typescript using Express.js to allow for integration with any voice assistant/front-end.
- Made use of Ngrok, an HTTP tunneling service to expose local API endpoints to the cloud.
- Created a google assistant app that detects git commands and sends them to the Express.js server via the API.

Java Application Developer - AI Natural Language Processing Chatbot   *Fall 2018*
Java, Maven, Neo4j

- Developed a standalone java application to process English phrases in a relational model using Neo4j.
- Used Stanford's Java libraries to tag POS and segment sentences to create a model for processing relationships between words.
- Self learning algorithm by identifying similarities between words based on context and surrounding elements of speech.
- Designed a desktop UI using frames to allow the user to interact with the AI.

AWARDS

CyberSecurity CTFTime **#8** Canadian Team January 2021, CyberSecurity CTFTime **#20** Canadian Team 2020
Canadian Computing Competition 2020 Senior Honour Roll

EDUCATION

UNIVERSITY OF WATERLOO   *Expected Graduation 2025*
Honours Mathematics Co-op, expecting to declare Combinatorics and Optimization