Jeff Gao

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TECHNICAL SKILLS

Languages: Python, Go, C/C++, Java, Shell, JavaScript, HTML, CSS, Swift, MATLAB
Tools/Frameworks: React/Redux, NodeJS, jQuery, Webpack, Flask, PyTorch, Spring, Selenium, Jenkins, Docker
Databases: MySQL, MongoDB, IBM Notes, SSMS, SQL(Oracle)

EXPERIENCE

Kenna Sept.2023 - Dec.2023

Web Application Developer | *React, NodeJS, SQL* *Mississauga, ON*

- Developed multiple graphic intensive, highly UI interactive and mobile responsive campaign sites, using **React** and other modern web technologies resulted an average 8% increase of site visits in 2 months
- Created **NodeJS/ExpressJS** landing page models and utilized **SEO**(Search Engine Optimization) techniques to improve accessibility and rendering performance for a vender eCommerce site with 200+ weekly visitors
- Migrated legacy jQuery/HTML project to **React** and refined state management to **Redux** pattern using Hooks and Context API for improving scalability and facilitating future expansion and maintenance
- Built JavaScript logics for client's periodic promotion and offer activities, integrated **Webpack** into the development workflow for efficient web project asset bundling and startup time reduction
- Designed and implemented **SQL schemas, tables, stored procedures and functions** using SQL Server Studio, used **IBM Notes** to manipulate the **NoSQL** forms for managing intricate database operations

TradeRev Jan. 2023 - Apr.2023

Software Developer in Test | *Java, Selenium, Spring, SQL, Jenkins* *Toronto, ON*

- Developed UI automation test scripts using **Java** and **Selenium,** reducing time taken for regression testing by 30%
- Built unit tests using **Postman** with **REST API** and **SOAP** web service achieved 90% execution time saving
- Created the shared step of scripts to automate the process of accessing **SQL** database and running **batch jobs** for improving team's efficiency when writing new unit tests
- Utilized **Spring Boot** to automate the configuration of the test suites, streamlined the development pipeline infrastructure and enhanced the software development lifecycle with rapid testing and deployment
- Configured **Maven** and **Jenkins** for dependency management and automatic build process of the Selenium project

Home Trust Company May. 2022 - Aug.2022

QA Automation Analyst | *Python, Docker, Bash* *Toronto, ON*

- Utilized **Kubernetes** to deploy **Docker** containers for establishing a scalable Python automation environment
- Built **Bash** scripts for the automatic generation of an HTML-based website to monitor the database performance in real-time, provided a convenient way for data solution team to collect database performance metrics
- Developed a text mining tool in **Python** to store data in **NumPy** format and yield a 30% efficiency enhancement

PROJECTS

SpendSnap | *NodeJS, Express, MongoDB, REST API* **Demo**

- Developed a full-stack transactional tally book solution having secure user authentication feature along with efficient spending activities management functionalities using **EJS, NodeJS** and **ExpressJS**
- Employed **MongoDB** with **Mongoose** for Object Data Modeling(ORM) to perform CRUD operations for effective data management, simplified database manipulation compared to direct MongoDB NoSQL querying
- Utilized **cookie**-based **sessions** for login management and security protocol, used JSON Web Tokens(**JWT**) to validate login credentials and grant secure access to API endpoints ensuing overall application security
- Implemented CSRF attack prevention using the Express-session middleware to enhance security measures

QA-QueryBot | *Python, Flask, PyTorch, NLTK* **Demo**

- Developed a chatbot of learning and training on a predefined set of questions and answers loaded from the user, using **Python** and **Flask** for backend HTTP requests handling, routing and interacting with the trained model.
- Applied **NLTK** in preprocessing the queries taken by the trained model by tokenizing sentences and stemming words
- Utilized **PyTorch** neural network model with the feedforward multiple linear layers design and ReLU(rectified linear unit) activations to establish and train a deep learning model for recognizing the dataset text patterns and associations

EDUCATION

University of Waterloo Sept. 2021 - Apr. 2026

Candidate for Bachelor of Applied Science in Computer Engineering *Waterloo, ON*

*Cumulative Average: **90%***