Hamzah Behery

EDUCATION

University of Toronto

Graduated Dec 2024

Honours BSc in Computer Science

Toronto, ON

- Data Structures and Algorithms, Software Design, Databases and Systems Programming, Computing in JS/Python
- Awarded: UofT President's Scholars of Excellence (Top 90 Applicants), 2020-24 Dean's List

EXPERIENCE

TriSpects Inc.

Sep 2023 - Jan 2024

Fullstack Software Engineering Intern

Toronto, ON

- Fully developed 15+ page company website end-to-end using JavaScript/HTML/CSS, Bootstrap, and CSS asset libraries to ensure a 100% responsive design and seamless user experience across all devices
- Leveraged server-side rendering (SSR) across site to improve SEO and reduce page load times by 40%
- Engineered the website's **RESTful API** and backend architecture using **Python Django (Wagtail)**, improving API response times **by 57**% and reducing overhead when fetching data through heavy queries
- Implemented dynamic elements through advanced **JavaScript DOM manipulation** and ensured a seamless experience for **2.6+ million users** by adhering to the WCAG 2.1 accessibility standards
- Designed a MySQL database with a tailored schema and custom data structures/components to efficiently organize 100+ website assets, saving the company \$10,000 annually by migrating to an in-house server
- Deployed the website to production using **Apache** while managing **version control via Git** to separate production and development branches, ensuring **zero downtime** and stable releases to customers during deployment

SIRTTS Inc.

May 2023 - Sep 2023

Software Engineering Intern

- Toronto, ON
- Used **Python Flask** to engineer a **RESTful API** and deploy an application optimizing the appointment setting process for 1.7+ million customers across Canada, addressing customer needs and stakeholder requirements
- Developed and spearheaded SIRTTS's strategic plan to utilize AI NLP libraries in the company's tech-stack (Python, HTML/CSS, JavaScript) to enhance data processing and client deliverables as described below
- Implemented two fine-tuned AI models to create a Python-based tool (NumPy, PyTorch) summarizing 300,000+ corporate chat messages into action items, boosting client workflow efficiency by 200%
- Led a team of engineers to test a school board web-app under an **AGILE development** workflow, involving creating **150+** tickets and managing bug reports on the **JIRA** platform while intergrating customer feedback

PROJECTS

Ridge Tutoring | JavaScript, HTML, CSS, PHP, SQL

- Engineered and developed a peer tutoring web-app with 2500+ users by designing a MySQL database (handling up to 300,000+ requests/day), RESTful API, admin panel, authentication system, and responsive interface
- Managed a team of 3 engineers to continuously develop, maintain, and deploy new versions of the web-app

MAC Reality Quest | TypeScript, React (+Next.JS), HTML/CSS, SQL

GitHub Repo

- Fully developed and deployed a full-stack web application with 130+ concurrent users at peak operation times, including a NextAuth user system utilizing the JWT authentication protocol and a RESTful API managing up to 5,000+ queries/hour for facilitating user sign-in and in-game tasks
- Separated server/client **React components** resulting in **50%** faster load times and client side execution, while using **TailwindCSS** along with component library **DaisyUI** to develop user-friendly, responsive design

AegisLock | Python (PyTorch, NumPy, Tkinter)

GitHub Repo

- Used a fine-tuned Microsoft CodeBERT-base AI model trained on 650,000+ data entries to recommend ideal passwords to users while securely storing account information and assessing it for vulnerabilities
- Used **Python Tkinter** to provide a seamless, interactive user experience across multiple platforms

TECHNICAL SKILLS

Languages: JavaScript, CSS, HTML5, Python, SQL, Go, Kotlin

Libraries/Frameworks: TypeScript, React, Next.JS, Node.JS, Django, Flask, PyTorch, TailwindCSS Developer Tools: Git, Docker, Kubernetes, Vercel, Postman, Firebase, Apache, TensorFlow, Jira