Hamzah Behery

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EDUCATION

University of Toronto   **Graduated Dec 2024**
Honours BSc in Computer Science   *Toronto, ON*

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

EXPERIENCE

TriSpects Inc.   **Sep 2023 - Jan 2024**
Fullstack Software Engineer   *Toronto, ON*

- Engineered company 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
- **Saved the company $5,500 annually** by migrating to an in-house server; designed a **MySQL** database to efficiently organize **100+** website assets with a tailored schema and custom data structures/components
- Fully developed **15+ page** company website **end-to-end** using **JavaScript/HTML/CSS** and **Bootstrap** for the frontend interface, ensuring a **100% responsive design** and seamless user experience across all devices
- Implemented dynamic **JavaScript components** by leveraging **event delegation** and **mutation observers**, while ensuring a seamless interface for **7000+ users** by adhering to the WCAG 2.1 accessibility standards
- Deployed the website 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 Engineer   *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 LLM models** to create a **Python**-based tool **(NumPy, PyTorch)** summarizing **300,000+** corporate chat messages into action items, boosting client workflow efficiency by **200%**

LEADERSHIP & ACTIVITIES

Ridge Tutoring | *CTO & Founding Engineer*   *JavaScript, HTML, CSS, AWS, SQL*

- **Drove 100% of technical strategy and execution**, developing a peer tutoring web-app supporting **500+ active users** by engineering a MySQL database, RESTful API, authentication system, and responsive UI
- **Led and managed** a team of 3 engineers in **bi-weekly sprints**, overseeing development, maintenance, and deployment of new features while **guiding 2 interns** through technical training to overtake larger responsibilities
- Deployed scalable backend services on **AWS (EC2, S3, RDS)** to handle high-traffic workloads (up to **35,000+ requests/week**) and optimize performance, reducing server costs while remaining highly available

PROJECTS

MAC Reality Quest | *AWS, TypeScript, React (+Next.JS), SQL*   Website | GitHub Repo

- Fully developed and deployed a full-stack web application with **150+ concurrent** users at peak operation times, including a **NextAuth** user system utilizing the **JWT authentication** protocol and a **RESTful API** managing up to **1,500+ queries/day** for facilitating user sign-in and in-game tasks
- Leveraged **AWS Lambda** to deploy scalable, **serverless API endpoints**, reducing backend infrastructure overhead and improving system reliability during peak loads

AegisLock | *Python (PyTorch, NumPy, Tkinter)*   GitHub Repo

- Implemented 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

TECHNICAL SKILLS

Languages: JavaScript, CSS, HTML, Python, SQL, C/C++, Java, Go

Libraries/Frameworks: TypeScript, React, Next.JS, Node.JS, Django, Flask, PyTorch, Bootstrap

Developer Tools: AWS, Git, Docker, Kubernetes, Vercel, Postman, Firebase, Apache, MongoDB, Jira