Samir Sharma

resume@samirsharma.ca | linkedin.com/in/samir-rsharma | github.com/SamirRSharma | www.samirsharma.ca

Technical Skills

Languages: HTML/CSS, Python, C++, JavaScript, TypeScript, SQL, Java, LaTeX
Frameworks/Libraries: React, Node.js, Flask, PyTorch, OpenCV, YOLO, Docker
Databases/Tools: MongoDB, MySQL, SQLite, Docker, Git, Bash

Experience

Software Engineering Intern June 2024 – Sep. 2024
Quickly *Calgary, AB, Canada*

- Optimized platform features by **refactoring backend code** in **Node.js**, reducing average loading times by **23%** and enhancing user experience.
- Resolved **15 critical bugs** over 4 weeks by collaborating with a team of 4 software engineers, significantly improving system stability.
- Developed validation systems using **Yup** and **TypeScript**, cutting database errors by **30%**, and authored API documentation, decreasing customer inquiries by **70%**.
- Conducted code reviews to ensure code quality and adherence to best practices in **Git** workflows.

Minecraft Server Programmer Sep. 2021 – June 2023
Independent Project *Calgary, AB, Canada*

- Built a high-performance **Minecraft server** using **Java** and **Spigot API**, supporting **5,000 concurrent users** and over **30,000 unique players**.
- Created custom **gameplay plugins in Java** to enhance gameplay and ensure robust server management.
- Boosted player engagement by integrating external **APIs** to automate reward systems.
- Raised **$6,000** for Ukrainian aid by developing and managing a **donation platform** and in-game store.

Projects

Fullstack Bionic Hand | ***JavaScript, Tailwind, MongoDB, Node.js, AWS EC2, API*** Hack the North 2024

- Tied for **finalist**, top 12 out of 239 teams at Hack the North 2024, Canada's largest hackathon.
- Developed a **bionic hand** controlled by **EMG and ECG signals**, utilizing a **language model** for signal interpretation.
- Linked the device to a **full-stack application** via **WebSockets** to display live stats and enable key binding functionality.
- Secured over **$9,000** in prizes.

ML Tennis Analysis System | ***Python, YOLO, PyTorch, OpenCV*** June 2023 – Nov. 2023

- Developed an **object detection system** using **YOLO** to detect and track players and tennis balls in video footage.
- Implemented a model to identify court key points, enabling accurate **player positioning** and automated **in/out calls**.
- Enhanced detection accuracy for fast-moving tennis balls by training custom **CNNs**.
- Utilized **PyTorch** for model training and **OpenCV** for video processing and visualization.

Full Stack AI Object Detection App | ***Hugging Face, Docker, AWS, Next.js*** Feb. 2024 – May 2024

- Built a **web app** allowing users to perform **object detection** on images using **Hugging Face** models.
- Containerized the application with **Docker** and deployed it on **AWS EC2** for scalable cloud hosting.
- Implemented image upload functionality on a **full-stack** application.
- Enhanced user experience by utilizing **Next.js** for front-end development.

Education

University of Waterloo Sep. 2024
Bachelor of Mathematics, Honours Co-op Program *Waterloo, ON, Canada*

- **Activities**: Math Society Speaker, Residence Council South President, Data Science Club, Computer Science Club