SAAD MAZHAR

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EDUCATION

University of Ottawa   Expected April 2026
Honors Bachelors of Computer Science, Minor in Mathematics

EXPERIENCE

AI Software Engineer Intern   May 2025 – August 2025
Tesla   *Palo Alto, California*
- Engineered AI LLM integrations and tooling into existing internal workflows to increase developer productivity on repetitive tasks by **50%**.
- Deployed an internal **AI agent** with multi-tool integration capabilities, enabling automated execution of complex workflows across enterprise systems using **Go, gRPC, and Protobufs**.
- Collaborated with cross-functional AI teams on automated PR review and weekly repository newsletter generation tools.

Fullstack Software Engineer Intern   January 2025 – April 2025
Tesla   *Palo Alto, California*
- Worked on a suite of web applications used to host component, wiring, and schematic data to help **10,000+** engineers worldwide using **TypeScript**, **React**, **Go**, **Kubernetes**, and **Docker**.
- Leveraged **goroutines** to implement **concurrent data processing** for automated compatibility checks.
- Created a graphing tool to calculate temperature curves based on electrical connection data, ensuring compliant components.

Software Engineer Intern   May 2024 – September 2024
Nokia   *Ottawa, Ontario, Canada*
- Developed a comprehensive internal **order tracking system** using **React**, **TypeScript**, and **Next.js**, enabling real-time monitoring of order status
- Generated a suite of **Bash** scripts that automatically configured accurate **IP/TCP** protocols for newly brought up networking testbeds.

Software Engineer Intern   September 2023 – December 2023
Nokia   *Ottawa, Ontario, Canada*
- Developed **Python** automation scripts to eliminate redundant In-Service Software Upgrade (ISSU) functions and structures in a large embedded **C** codebase, reducing manual effort by approximately **92%**.
- Streamlined codebase maintenance by automating the identification and removal of obsolete ISSU components, processing over **1,000,000** lines of code.

PROJECTS

AI/ML Research Paper: HABO Framework for Hyperparameter Optimization
- Conducted in-depth analysis of stochastic and adversarial bandit algorithms, demonstrating their efficacy in applications of hyperparameter optimization for machine learning models.
- Supervised by Dr. Tom Cesari at the University of Ottawa EECS department.

SaadGPT   **TypeScript, React**
- Made a unique take on the ChatGPT website layout and design to host my personal website.
- Features a custom chatbot that answers questions from my resume and experience.

Custom Interpreter   **Go**
- Built a lightweight interpreter from scratch for a custom programming language, supporting basic arithmetic operations, control flow, and data types.
- Developed comprehensive unit and integration tests to ensure correctness and stability.

TECHNICAL SKILLS

Languages: Go, TypeScript, Python, C, C++, Rust, SQL, Bash
Frameworks/Libraries: React, NextJS, GraphQL, gRPC **Technologies/Tools**: Kubernetes, Docker, Linux/Unix, Git, REST APIs, MySQL, Postgres, AWS, NGINX, LLMs,