

Saad Mazhar

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EDUCATION

University of Ottawa

Expected April 2026

Honors Bachelors of Computer Science, Minor in Philosophy

EXPERIENCE

Software Engineer Intern

May 2025 – August 2025

Tesla

Palo Alto, California

- Deployed an internal **AI agent** with multi-tool calling capabilities, enabling automated execution of complex workflows across enterprise systems using **Go, gRPC, and Protobufs**.
- Engineered AI LLM integrations and tooling into existing internal workflows to increase developer productivity on repetitive tasks by **50%**.
- Presented project at Department All Hands (**800+ Engineers**) and received maximum performance review.

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

- Created **Go** based CLI tools for network configuration management that automated previously manual processes, saving engineering teams **20+ hours weekly**.
- Helped maintain and improve network testbed infrastructure, decreasing downtime and improving average response time.

Software Engineer Intern

September 2023 – December 2023

Nokia

Ottawa, Ontario, Canada

- Developed **Go** 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, Protocol Buffers (Protobufs)

Technologies/Tools: Kubernetes, Docker, Linux/Unix, Git, REST APIs, MySQL, Postgres, AWS, NGINX, LLMs