TALHA SUBOOR

204-952-5237 | mtsuboor@uwaterloo.ca | linkedin.com/in/talha-suboor | talhasuboor.me

EDUCATION

University of Waterloo Waterloo, ON

Honours Bachelors of Computer Science – Computer Science *Graduating 2024*

TECHNICAL SKILLS

Languages: C/C++, JavaScript (TypeScript), Python (incl. Socket Programming), Kotlin, SQL, Golang, C#
Frameworks: React.js, Node.js, Express.js, Django, GoogleTest, Jest, CircleCI, Jetpack Compose
Tools: AWS, S3, Google Cloud Platform (GCP), Azure, Protobuf, SQLite, Docker, MongoDB

EXPERIENCE

Undergraduate AI Research Assistant Sept 2023 – Present
University of Waterloo *Waterloo, ON*
- Researching improving adoption of best practices as a part of **Responsible AI** Program (NSERC CREATE Grant).

Undergraduate Generative AI Research Assistant May 2023 – Aug 2023
University of Waterloo *Waterloo, ON*
- Investigated **characteristic limits of large language models** (ChatGPT & CoPilot) on algorithmic problems.

Full Stack Software Infrastructure Engineer Intern Sept 2022 – Apr 2023
Kodiak Robotics *Mountain View, CA*
- Designed and implemented new **constant time loading infrastructure**, for multi-source log sensor data from their autonomous vehicle fleet, written in C++17, that **decreased load time by 98%**.
- Designed new company-wide log-retention policy, and supporting infrastructure, to **reduce storage costs by $700,000 annually** and **increase running storage space by 82%** without decreasing data accessibility.
- Fixed and maintained log ingestion infrastructure (written in Go and Python, managed with Airflow).
- Improved live log visualization (C++, three.js) to benefit marketing and branding directives.
- Initiated investigation and ideation for tooling improvements for hardware teams.

Full Stack Software Engineering Intern Jan 2022 – Apr 2022
AutoTrader *Toronto, ON*
- Utilized Dependency Injection to decouple components, enabling seamless integration of new routing algorithms.
- Refactored code to favor interfaces & factory pattern to improve extensibility, **reducing future devtime by 20%**.
- Created tools with **Redux** and **React Router** to enhance communications between customers and 4900+ dealers.

Software QA Developer Intern May 2021 – Jun 2021
MapleSoft *Waterloo, ON*
- Elevated code coverage by 22% of critical UI components via Jest unit tests, incl. snapshot and screenshot testing.

Web Development Contractor Jan 2021 – Apr 2021
Coder Cookies *Waterloo, ON*
- Created a logging system using **React, Express.js**, and **SQL**, resulting in a **46% increase in customer satisfaction**.

Full Stack Software Developer Intern Sept 2020 – Dec 2020
Tauria Inc *Waterloo, ON*
- Implemented features to improve Tauria's video conferencing platform, and UX using **React.js** with **Typescript**.
- Developed a specialized video call generator using **Express** with Typescript, to improve marketing effectiveness.

PROJECTS

 Amuse | *Social Network Android App* **Won Best Demonstrated App**
- Architected and designed a microservices backend android app, using the observer, adapter, & strategy patterns.

 Apollo Light | *Natural Language Processing* Hack the North
- Used Python with Google's Natural Language API to analyze articles and display aggregated sentiment data.

 PrivaSEEable | *Privacy Chrome Extension* **Hackathon Winner**
- Won **3rd place Overall** Prize at Citizen Hacks, for exemplifying the principles of Privacy by Design.