NAUSHER RAO
SOFTWARE ENGINEER

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PROFESSIONAL EXPERIENCE

Shopify

Software Engineer   **Jan. 2023 - Apr. 2023**

- Continued to be a part of the Unified App Deployments Team and worked on creating a system that allows Shopify Partners to host third-party extensions through Shopify infrastructure. I achieved this by working on the **Ruby on Rails** backend to add and rework endpoints using **GraphQL** for this new system, which is interacted with by roughly **2000 developers daily**.
- Created new sections on the Shopify Partner Dashboard web app using **React (TypeScript)** that interface with these new endpoints.

Software Engineer   **May 2022 - Aug. 2022**

- Was a part of the Unified App Deployments Team and worked on creating a system that allows Shopify Partners to host third-party extensions through Shopify infrastructure.
- Added a handful of new **OAuth** fixes and interactive features (using TypeScript's Enquirer library) to the official open-source Shopify CLI written in TypeScript. The CLI is used by **850 third-party applications daily**.
- Rewrote frontend sections of the Shopify Partner Dashboard by converting the codebase from **Ruby on Rails** to **React (JavaScript)**, while employing Shopify's newer design philosophy. This dashboard is used by millions of users daily.

Magnet Forensics

Software Engineer   **Sep. 2021 - Dec. 2021**

- Worked on the STS (Systems, Tools, and Software) Team; personally ensured that tools and stack were active and online daily to be used by different Engineering departments, such as **Jenkins, PRTG, Azure DevOps, Jira**, and the **100s of machines in our build-farm**.
- Focused on the Build Dashboard, adding new features to help others perform tests and case evaluations for products deployed on the field. This was mainly with **React & Redux (JavaScript)** and **C# (ASP .NET & SignalR)**, for over **100 Engineering employees** to be used daily.

Wilfrid Laurier University

Instructional Teaching Assistant   **Sep. 2020 - Dec. 2023**

- Responsible for proctoring and teaching students key concepts in the following courses; **Introductory Python, Introductory Data Structures, Advanced Data Structures, ARMv7, MIcroprocessors, and Foundational Computer Science** through multiple 3-hour lab sessions per week, for an average attendance of **20-100 students** per session depending on the course.
- Graded an average of **400 total assignments** over a semester for 100 students for Foundational Computer Science, the most abstract and fundamental computer science course.

Freelance Development

Fullstack Developer   **Apr. 2012 - Dec. 2022**

- Wrote software for different clients through a variety of online platforms for an estimated **80 clients**, the software mostly being written using **Java 8** and **Maven**.
- Specialized in creating modifications and additions for game servers with **750 - 50k players** per player base.
- Organized client information through invoicing and CRM software.

EDUCATION

Honours BSc Computer Science

Wilfrid Laurier University
Sep. 2019 - Dec. 2023

Applied Mathematics Option

Wilfrid Laurier University
Sep. 2019 - Dec. 2023

TECHNICAL SKILLS

Languages

JavaScript, TypeScript, C, C#, Python, Java (6-11), C++, Ruby, CSS, HTML, TeX

Frontend Frameworks

React, Vite, Redux, Bootstrap, Mantine, Chart.js, D3.js, jQuery

Backend Frameworks

ASP.NET, Express.js, Django, Fastify, Discord.js, Discord.py, Ruby on Rails

Miscellaneous Frameworks

GraphQL, REST, PyTorch, TensorFlow, Numpy, Seaborn, Matplotlib, scikit-learn, OpenMPI, GNU MP, Android Studio, NLTK

Tools

Git, Jenkins, Maven, Gradle, Docker, Notion, Jira, Trello, Notion, PRTG, Figma, Canva, LaTeX

Cloud

AWS: EC2, S3, Lightsail
Microsoft Azure: DevOps Services, AI & ML Services
Google Firebase: Cloud Functions, Authentication, Hosting, Storage

Game Development

LibGDX, LWJGL, OpenGL, Pygame, Box2D, Ashley/Artemis ECS, Unreal Engine 4 & 5, Unity, Three.js

Databases

Cloud Firestore, MongoDB, SQLite, MySQL, MariaDB, Redis

EXPERIENCE & PROJECTS

HawkHacks

President & Founder   **Jan. 2023 - Apr. 2023**

- Led one of Canada's largest hackathons - a team divided into engineering, finance, corporate outreach, logistics, design, and marketing departments. This responsibility entailed managing a first-time hackathon in 2022, with an **executive team of 30**, and with **825 registrants**, **750 attendees**, **14 sponsors**, and **$26K+ in prizes**.
- The 2024 hackathon will be an in-person hackathon, being worked on by **45 executives** with an expected **attendance of 300-600** and an estimated total **budget of $25K - $30K**.

Laurier Computing Society

VP of Operations & Internal Affairs   **Apr. 2023 - Present**

- Help transition the society to new leadership by formalizing many of the ad-hoc processes that the club uses, as well as helping manage various HR-related inquiries.

President   **Apr. 2021 - Apr. 2023**

- Restructured, revamped, revitalized, and led one of Canada's largest university computer science societies - a team divided into a communications, finance, events, engineering, outreach, and marketing department. This responsibility entailed managing a team of **56 executives** and a community of more than **3500 students**.
- The club produced various computer science-oriented events and initiatives. with an average of **30-40 events per year** and **50-300 attendees per event**.

Computing Councils of Canada

Co-Founder & Director of Systems Administration   **Oct. 2020 - Mar. 2023**

- Worked as a high-level executive and one of the founding members at the Computing Councils of Canada, being involved in every department to ensure ample infrastructure was set up as a newly-founded non-profit organization, and ensured that tasks were completed.

Spotify AI Album Cover Generator

Full-Stack Website Project   **Dec. 2023 - Present**

- Developing a full-stack application using **React (TypeScript)**, that allows users to submit a link to a playlist and set some preferences to use **OpenAI's DALL-E** AI image generation to generate album covers.

Solar System Differential Simulation

Research Project   **Sep. 2023 - Dec. 2023**

- Created a visual 2-dimensional solar system simulation in Python using **Pygame** to model the movement of various celestial bodies in the solar system with respect to time using basic 2-dimensional differential equations.

MuSpace

Social Media Website   **May. 2021 - Aug. 2021**

- Created a social media platform that connects people based on their musical listening tastes - responsible for managing and delegating tasks in a group of 12 people in an Agile environment over the course of 4 months for a Software Engineering class.
- Architectured specific coding and design patterns for a **React (JavaScript)** frontend and ensured developers and UI designers were delegated specific tickets to work on specific components, pages, and sections.
- Implemented the **Spotify Web API** and **OAuth2** to authenticate users and load listening data and trends, while using **Google Firebase** for data storage, authentication, hosting, and CI/CD.

RECENT HACKATHONS

HackTheNorth 2022

That's Crazy! - An accessibility-focused CLI written in **Python** using **AI and ML (speech recognition, NLP, and sentiment analysis)** to summarize text, generate freestyle song lyrics and create blog posts.

RUHacks 2021

Kabo - A karaoke Discord bot written in J**avaScript** and **Python** for simulating karaoke with live pitch and lyrical correctness scoring using **Microsoft Azure's AI & ML Services (NLP)** .

HackTheNorth 2021

Chaterest - A moderation Discord written in JavaScript bot that automates discussion moderation, and measures user interests using **AI and ML (speech recognition, NLP, and sentiment analysis)**.

HONOURS

Club of the Year

Presented to the Laurier Computing Society by the Faculty of Science Student Association for the 2022/23 academic year.

President of the Year

Presented to the Laurier Computing Society by the Faculty of Science Student Association for the 2021/22 academic year.

MLH Hackcon X Speaker

Invited to speak at a 3-day conference on the topic of starting your very first hackathon, to an audience of 400 organisers.

Event of the Year

Presented to the Laurier Computing Society by the Faculty of Science Student Association for the 2021/22 academic year.

Marketing of the Year

Presented to the Laurier Computing Society by the Faculty of Science Student Association for the 2021/22 academic year.