

Hisham Ladha

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EDUCATION

Bachelor of Computer Science (Co-op)

Montreal, QC, Canada

Concordia University

Jan 2022 – Present

- **Relevant Courses:** Data Structures & Algorithms, Machine Learning, Operating Systems, Networking, OOP
- **Awards:** AgaKhan Academies Scholarship (Full tuition/ \$120,000), Dean's List 2022-2023

TECHNICAL SKILLS

Languages: Java, Python, JavaScript/TypeScript, C/C++, SQL, , HTML/CSS, Bash

Skills: React, Angular, Next.js, Node.js, FastAPI, MongoDB, TailwindCSS

Tools: Git, Docker, Unix/Linux, AWS, Traefik, SciKit Learn, Pytorch, Wireshark, Burp Suite, MySQL, PostgreSQL

EXPERIENCE

Royal Bank of Canada

Toronto, ON, Canada

Software Engineer Intern – Amplify

May 2024 – Aug 2024

- Engineered a **Multi-Agent LLM** simulation of RBC Capital Markets' sales process simulating sales and client interactions using **TypeScript, Python, MongoDB, Langchain, React.js, and Docker** resulting in an estimate of **\$800M** of additional revenue over the next 10 years
- Developed a modular document rules engine that parses, calculates and outputs document requirements for Capital Markets clients using **Python, FastAPI, Pandas and Next.js**
- Filed **2 provisional patents** for the above technologies which are currently being implemented by the bank

Royal Bank of Canada

Montreal, QC, Canada

Software Engineer Intern

Jan 2024 – May 2024

- Developed **frontend** online banking features for projects including International Money Transfer and Add Bill Payee serving **17+ million** clients using **Angular, TypeScript, CSS/Sass, NgRx, and Figma**
- Wrote 10+ **backend** performance tests using **Javascript K6** for Add Bill Payee production API endpoints
- Led a team of 8 as **Scrum master** for a sprint while working in an **Agile** software development environment using **Jira, Confluence and Mural** to document tasks, plan sprints, track progress and facilitate retrospectives

PROJECTS

Scoper - Canadian Internship Salaries | *Python, Next.js, TypeScript FastAPI, PostgreSQL, Docker, Traefik*

- Developing a **full-stack platform** with currently over 350+ salaries for Canadian students to view and share internship salaries, providing transparency on industry pay trends
- Deployed on a custom production-ready VPS with a **reverse-proxy, load balancing, auto-builds and a custom firewall** using **Docker, Traefik, ufw and Watchtower**
- Engineered **10+ RESTful API** endpoints for salary submission, retrieval, and analytics, ensuring efficient data handling and scalability using FastAPI

Phoenix – McHacks11 Winner | *Python, React, Docker, NMAP, Metasploit*

- Engineered an **automated penetration testing tool** that scans a network, performs machine and port enumeration and simultaneously runs exploits returning a shell on a victim machine if successful using **NMAP, MetaSploit & Python**
- Developed the **front-end** interface using **React.js & flowbite-react** that receives an IP address and additional options, transmits the data to a local process, displays results dynamically and provides an interactive shell

HecticGarage – ConUHacks VII Winner | *React, Tailwind CSS, Auth0, Chart.js, Firebase*

- Created a secure web application that displays a detailed report including revenue generated and potential revenue missed through a dashboard for a tire repair shop
- Implemented authentication using Auth0's universal login page and ensured appropriate authorization to different page sections using **React.js state handling & Auth0 functions**

DoMore 2021 | *JavaScript, HTML, CSS, Figma, Github*

- Led a team of 2 and developed a tuition fundraising website for underprivileged East African students resulting in over **USD\$40,000** raised
- Enhanced user experience over time using Github, CSS, Adobe Photoshop, and JavaScript leading to a **35% increase in site interactivity** based on user feedback