

HASSAN CHOWDHRY

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Education

Dalhousie University

Bachelor of Computer Science (BCS) (CGPA: 4.24/4.3)

Sep 2022 – May 2027

Halifax, NS

Work Experience

Software Engineer Intern

Activision (Microsoft)

Jan 2026 – Present

Vancouver, BC

- Architected and Engineered scalable, fault-tolerant microservices in Golang and Python for Call of Duty's backend infrastructure, supporting 100M+ monthly active players across global distributed systems.
- Designed and optimized data pipelines with Kafka, Flink, and Spark, enabling real-time telemetry and analytics for over 500k+ concurrent players worldwide.
- Developed and automated Kubernetes deployments, achieving zero-downtime rollouts and enhancing service reliability across multi-datacenter clusters.
- Collaborated with cross-functional Microsoft, Activision, Blizzard and Demonware teams under Agile/Scrum workflows to deliver secure, scalable multiplayer systems.

Undergraduate Researcher

May 2025 – Dec 2025

Dalhousie University

Halifax, NS

- Engineered Agentic AI cyber defense agents using PyTorch and LangChain, improving intrusion detection and prevention accuracy in simulated cybersecurity environments.
- Pioneered transparent cyber defense by creating a LangGraph LLM agent that justified mitigation steps in natural language, supporting the development of hybrid LLM and RL defense systems.

Software Engineer Intern

Jan 2025 – May 2025

Synopsys (Ansys)

Waterloo, ON

- Spearheaded a 50+ Cypress E2E test suite for Ansys Fluids with CI on Kubernetes, surfacing 10+ critical UI defects and cutting regression time 15%.
- Enhanced enterprise-scale simulation workflows by standardizing a React and JavaScript frontend with FastAPI microservices and Docker environment, boosting user efficiency 25% and reducing setup time 15%.

Software Engineer Intern

May 2024 – Aug 2024

BOTR Solutions

Vancouver, BC

- Reduced deployment time by 60% by automating CI/CD pipelines with AWS, ensuring scalable and reliable delivery.
- Accelerated feature development by 30% by designing and implementing comprehensive E2E backend systems for REST APIs using Django and PostgreSQL, reducing integration time and improving system reliability.

Head Teaching Assistant

Sep 2023 – Dec 2025

Dalhousie University

Halifax, NS

- Led weekly labs for 150+ students, reinforcing Data structures & Algorithms and full-stack concepts with Java, PHP, Node.js, and Express through guided, hands-on projects.

Leadership, Honors & Certifications

Gold Medal (1st Place) in the 2025 ICPC Canada Atlantic Contest

Amazon Web Services (AWS) Solutions Architect – Associate

Co-Founder & Co-President – Dalhousie CSL | President – Dalhousie MSA

Projects

OldBailey AI | GitHub

Next.js | Flask | AWS | TypeScript

- Accelerated historical research by utilizing AI-driven data analysis using RAG and prompt engineering, allowing researchers to gain insights into trends from the Old Bailey dataset in a fraction of the time.

Technical Skills

Languages: Python, JavaScript, TypeScript, Java, Go, C, C++, C#, PHP, Erlang, Kotlin SQL, GraphQL, HTML5, CSS

Libraries/Frameworks: React, Next.js, Flask, FastAPI, Node.js, Express.js, Kafka, Flink, Spark, PyTorch, TensorFlow

DevOps/Cloud: Kubernetes, Docker, AWS, Azure, Jenkins, GitHub Actions, Cypress, JUnit, Jest, PyTest

Developer Tools: Git, Linux, MySQL, PostgreSQL, CassandraDB, MongoDB, Redis, Hugging Face, Postman, Jira