

Vinesh Benny

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🌐 LinkedIn

SKILLS

Languages: Python, Java, TypeScript, C, Rust, Lua, SQL, HTML, Solidity, CSS, Haskell, mongosh, bash, Scheme

Frameworks/Databases: Angular, Node.js, Express.js, MongoDB, Neo4j, PostgreSQL, Firebase, Microservices

Tools/Technologies: AWS, Docker, Bash, Dagger, Maven, Postman, Git, Jira, Unix, OpenGrok, Treesitter, Metasploit, Wireshark

EDUCATION

University of Toronto – Honors Bachelor of Science

Sep. 2020 – Apr. 2024

Major in Computer Science — *Specialization in Software Engineering Stream*

Toronto, Ontario

- **Teaching Assistant** – CSCA20, CSCB09

Conducted weekly tutorial sessions with over **40** students going over concepts in **software engineering**,

Introduction to Programming and **Systems Programming** in **C** and **bash/zsh** while also assisting students with labs/assignments.

Created solutions for past finals from 2015 – 2022 as a resource used by *100+* students in the course.

- **Awards:** University of Toronto Scholar, Fall 2021 Dean's List

WORK EXPERIENCE

Software Developer Co-op

Sep. 2022 – Dec. 2022

BlackBerry QNX — *C, Jira, Salesforce, OpenGrok, VMWare*

Mississauga, Ontario

- Debugged the kernel of the **POSIX-compliant QNX real-time operating system**.
- Worked in the integration team in a customer-facing role where the major task was debugging the kernel with focus on **thread communication**, **synchronization**, and **process scheduling**.
- Collaborated with other developers to develop and implement software patches and fixes to resolve **15+** issues found during the debugging process.

RELEVANT EXPERIENCE

🔒 **ProtoBufs** — *C, Protocol Buffers, OpenSSL*

Sep. 2023 – Dec. 2023

Library for secure communication using Protocol Buffers and OpenSSL

- Developed a **C** library to serialize and deserialize data using **Protocol Buffers** and **OpenSSL** for secure communication using asymmetric **RSA** encryption.
- Implemented a **client-server** model to demonstrate the library's functionality and performance.

MyBnB Database — *MySQL, Java*

May 2023 – Aug. 2023

AirBnB clone database implementation in Java

- Designed and implemented a **MySQL** database for a **AirBnB** clone using **Java** to manage the backend.
- Utilized **JDBC** to connect to the database and implemented **CRUD** operations to manage the database.

🔒 **Scholarly** — *Next.js, Node.js, PostgreSQL, TypeScript, Docker, AWS Lightsail*

Jan. 2023 – Apr. 2023

Real-time online tutoring application powered by **WebRTC**

- Architected real-time video chat using **WebRTC** for low-latency communication between students and tutors.
- Implemented a production-ready payment system with **Stripe**, following best practices for asynchronous payment processing with **webhooks**.
- Deployed the application using **Docker** and **Amazon Lightsail**, with **LetsEncrypt** TLS certificates.

🔒 **Weast** — *Python, SQLite, AWS, Papertail, OpenAI*

Jun. 2021 – Present

ChatGPT Discord bot with over **500 active users**

- Structured a robust WebAPI to store images on AWS S3 resulting in **10%** better time and space efficiency.
- Integrated a chatbot command using **OpenAI's ChatGPT API** for instant search and conversational queries resulting a **30%** increase in user interaction.
- Streamlined deployment by serving the project over an **AWS EC2** server using **Docker** containers and setup CI/CD using **GitHub Actions**, resulting in a seamless experience for users.