

Vinesh Benny

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EDUCATION

University of Toronto - Honors Bachelor of Science

Sep. 2020 – Apr. 2024

Co-op Bachelor's in Computer Science — *Software Engineering Stream Specialist*

Toronto, ON

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

EXPERIENCE

Software Developer

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**, used by Automakers such as BMW, Ford, Mercedes-Benz, as well as in medical devices, robotics and industrial embedded systems industries.
- 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**.
- Coordinated efforts with cross-functional teams, including hardware engineers and quality assurance professionals, to ensure the successful delivery of high-quality software products.
- Collaborated with other developers to develop and implement software patches and fixes to resolve **15+** issues found during the debugging process.

Teaching Assistant

Jan. 2022 – Present

University of Toronto — *CSCB09 – Software Tools and Systems Programming*

Toronto, ON

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

PROJECTS

Scholarly — *TypeScript, Next.js/ReactJS, PeerJS, PostgreSQL, Docker, Lightsail*

Jan. 2023 – Apr. 2023

- Developed a peer-to-peer video chat web application in **NextJS (React)** for live online tutoring..
- Implemented video chat functionality using PeerJS, and utilized numerous backend/frontend API's such as **Stripe, FullCalendar, SendGrid** for additional features, paired with a robust backend architecture using **Node.js/TypeScript** and **PostgreSQL** to ensure resilience and scalability.

Discord Bot — *Python, AWS, MongoDB, SQLite, Git, PaperTrail, OpenAI*

Jun. 2021 – Present

- Collaborated with a peer to build an interactive multi-purpose autosharding **Discord bot** using the **discord.py** module.
- Implemented **cloud logging** and **remote server control** to facilitate remote development.
- Built backend from scratch to store images on **AWS**, with associated metadata on **MongoDB**, for advanced tagging and analytics.
- Deployed the bot in a public university discord server with over **500** users and got consistent interaction.
- Setup and hosted the bot on an **EC2** instance using task scheduling, **batch scripting** and collaboration using **git**.

Pawsup — *MongoDB, Express.js, ReactJS, Node.js, Git*

Sep. 2021 – Dec. 2021

- Engineered the backend using **Express.js** and **Node.js** following a **Model-View-Controller (MVC)** design making use of the **RESTful** API architecture to send and receive user data.
- Designed a modern UI mockup using **Figma** and implemented the frontend using **React Native** styled components.
- Stored and securely accessed user data using a non-relational database structure in **MongoDB**.

SKILLS

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

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

Tools/Technologies: AWS, Docker, Bash, Mars, Dagger, Maven, Postman, Git, Jira, Linux/Unix, JUnit, OpenGrok, Ethereum