

# Vinesh Benny

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🐙 github.com/VBenny42

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## SKILLS

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**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

## EDUCATION

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**University of Toronto - Honors Bachelor of Science**

Sep. 2020 – Apr. 2024

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

Toronto, ON

## EXPERIENCE

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**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.

**Teaching Assistant**

Jan. 2022 – Present

University of Toronto — *CSCA20, CSCB09*

Toronto, ON

- 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.
- Enhanced the understanding of multiple languages such as **Python** and **C** through answering questions on the discussion board, during tutorials, and in inverted lectures.
- Created solutions for past finals from 2015 – 2022 as a resource used by **100+** students in the course.

## PROJECTS

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

Sep. 2023 – Dec. 2023

- 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

- 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** — *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 APIs 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.

🔒 **Weast** — *Python, AWS, MongoDB, SQLite, Git, PaperTrail, OpenAI*

Jun. 2021 – Present

- Collaborated with a peer to build an interactive multi-purpose autosharding **Discord bot** using **python**.
- 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**.