# SRIHARI VISHNU

+1 519-500-9912 • srihari.vishnu@gmail.com • Waterloo, ON
linkedin.com/in/sriharivishnu • sriharivishnu.com • github.com/sriharivishnu

## TECHNICAL SKILLS

**Languages:** **C/C++**, **Python**, **Kotlin**, Java, JavaScript, HTML & CSS, Swift, SQL (MySQL)
**Tools & Frameworks:** **Android Studio**, **Firebase**, Raspberry Pi, Arduino, Linux (Basic), Express (Node.js), React

## EXPERIENCE

**Software/Systems Developer Intern -** GitHub — Oct 2019 - Oct 2020
Open Learning Exchange – Treehouses Team

- Developed an **Android app** that connects to a **Raspberry Pi** over **Bluetooth** for 60+ active installations in remote countries
- Worked on a functional SSH Client within the app for people in remote regions to connect to an SSH server
- Upgraded the **Bluetooth communication channel**, which allowed for seamless connection with a Raspberry Pi
- Redesigned multiple screens and decreased the app size by over 15%, which resulted in positive user feedback
- Proposed and implemented a **multi-threaded** Bluetooth server for the Raspberry Pi, increasing communication efficiency

## PROJECTS

**Flappy Bird Agent (Machine Learning) -** GitHub — Oct 2020 - Dec 2020
**Technologies:** Python, TensorFlow, Reinforcement Learning

- Incorporated **Reinforcement Learning** and **Genetic Algorithms** to train an agent to play the mobile game Flappy Bird
- The agent achieved 20x higher scores than the average human player, with only the game state as input.

**GameFace (Group Video Chat Android App) -** GitHub — Apr 2020 - Aug 2020
**Technologies:** WebRTC, Node.js, Firebase, Android Studio, MVVM, CI/CD, Google Cloud

- Created an **Android** Group Video-Calling application, and developed the backend with **Node.js + Express**
- Implemented clean design practices by leveraging the **MVVM** Design Pattern and used CircleCI for CI/CD

**Nova (Programming Language) -** GitHub — Jul 2020 - Oct 2020
**Technologies:** C++, Makefile, GNU Tools

- Built an interpreted programming language written in **C++,** that has functional recursion, variables and lists
- Leveraged the Visitor design pattern to create a flexible and scalable Parser, Lexer, and Interpreter

**EasyLang - Hack the North 2019 (Real-time object classifier) -** GitHub — Sep 2019
**Technologies:** Java, ML-Kit, Android, ARCore

- Constructed a **real-time object classifier** on **Android** that translates the name of an object into a given language
- The app displays the result as a label on the object in **Augmented Reality** so that users can learn a new language in 3D.

## EDUCATION

**Bachelor of Software Engineering** — Expected Feb 2025
University of Waterloo - **GPA**: **96.18%**
**Relevant Courses:** CS137: Programming Principles (100%), SE101: Software Engineering (100%)

## ACCOMPLISHMENTS

- Top 5% of participants in Canadian Computing Programming contest (Honour Roll with Distinction)
- HackerRank Advanced Problem-Solving Certificate
- Class of 2020 High School Valedictorian