ARCHIT VERMA

+1 778-554-2705 https://www.linkedin.com/in/archit-verma-b924a8209/ http://archit-v.web.app
https://github.com/Architv27 varchit@sfu.ca
Apt #122F, 600 Smith Avenue, Coquitlam, BC, V3J 2W4

EDUCATION

SIMON FRASER UNIVERSITY — Jan 2019 - Present

- Bachelor of Applied Science in Computing Science.
- Expected Graduation: Sept 2024

TECHNICAL SKILLS

- **Programming Languages:** C/C++, Java, Python, JavaScript, HTML, CSS, Typescript, React, Assembly language (x86), Haskell, Kotlin, XML, Bash, R.
- **Concepts:** OOP, A*, BFS, DFS, MDP, Data Structures, Constraint Problems, Binary Tree, Threads, Semantics, Android Development, Computer vision and graphics.
- **Applications:** Git, Figma, Balsamiq, Android Studio, Docker, Nginx, Postman, Visual Code, MATLAB, Linux environment (Debian, Ubuntu, etc.), Windows, MacOS, Vim, Firebase, ArcGIS.
- **Hardware:** Arduino, Raspberry Pi4, Marlin Firmware, Klipper Firmware.
- **Framework:** Express.js, Node.js, Django, Vue.js, Next.js, Jest, Junit.

PROFESSIONAL EXPERIENCE

Rapidia Tech Inc. VANCOUVER, BC

- **SOFTWARE ENGINEER (PART-TIME)** — **Jan 2023 - May 2023**
  - Upgraded Rapidia Host V3 **REST APIs** to **OPEN APIs**, enhancing efficiency and integrated Rapidia Slicer with **Cura**. Developed a **Python** AI **reducing paste wastage by 70%** and improving print quality. Played a key role in project planning and documentation.
- **SOFTWARE ENGINEER CO-OP** — **Jan 2022 - Dec 2022**
  - Upgraded Rapidia Host to a **Microservice setup** on **Raspberry Pi 4**, enhancing printer performance. Integrated **Docker**, **Nginx**, **REST APIs**, **Gcode** processing, and 3D modeling with **Three.js**. As a Full-Stack Engineer, developed key services using **Bash**, **Express.js**, **TypeScript**, **React.js**, **Python** ensuring robust printer management and collaborated on end-to-end software lifecycle from design to maintenance. This upgrade allowed users to access the printers wirelessly on the same network.

TECHNICAL PROJECTS

- **3D RECONSTRUCTION PROJECT** — **NOV 2023 - DEC 2023**
  - In CMPT 412 (Intro to Computer Vision), developed a **Python** framework for 3D reconstruction using epipolar geometry and depth algorithms, with a GUI for epipolar matching, showcasing its use in AR and autonomous navigation.
- **SIGN LANGUAGE LEARNING APP (FLUENT HANDS)** — **NOV 2023 - DEC 2023**
  - Developed an **Android** app in **Kotlin** for ASL learning, using **Mediapipe** and **XML**. In a team of five, I created the camera activity, learning/result pages, and integrated **Mediapipe** for gesture recognition.
  - Project on GitHub: [group-18](https://github.com/Architv27/group-18). Website: https://sites.google.com/view/fluenthands/home
- **PACMAN GAME** — **JAN 2023 - APR 2023**
  - Used **Python** to **automate**, **optimize**, and **enhance** PACMAN's movements in the game. Implemented various **AI algorithms** and heuristics learned during the **Introduction to Artificial Intelligence** course at SFU to achieve the highest game scores.

INTERESTS

- Computer Vision & AR/VR
- Immersive Game Development
- Cultural Exploration Travel

GOALS

- Aim to develop a unique AR game that fuses real and digital worlds, elevating storytelling and gameplay in digital entertainment.
- Seeking projects in AI and computer graphics.
- Learn more about computer vision and in the field of human centric AI.