

Anant Khanna

Vancouver, BC | itsanantk@gmail.com | <https://itsanantk.github.io/> | <https://www.linkedin.com/in/itsanantk>

Professional Summary

I'm a UBC Computer Engineering student with expertise in machine learning, software development, and embedded systems. I have hands-on experience deploying and optimizing machine learning models and designing IoT systems. I have professional work experience from my internship at Zoom Engineering Ltd, and I am currently a software developer at UBC UAS, specializing in the machine learning subteam.

Education

University of British Columbia, BSc in Computer Engineering

Expected Graduation 2028

Experience

UBC Uncrewed Aircraft Systems, Machine Learning Software Engineer Sept 2024 - Present

- Boosted detection accuracy to 98% by integrating YOLO-based machine learning models for autonomous drones
- Improved model performance by 30% through calculated mean average precision analysis and optimization
- Collaborated cross-functionally to integrate software and hardware components, ensuring clear communication

Code Ninjas, Programming Instructor

May 2025 – August 2025

- Taught 120+ students foundational programming concepts in and C# and JavaScript using Microsoft MakeCode
- Led interactive logic-building activities to foster creativity, problem-solving, and debugging skills

Zoom Engineering Ltd., Junior Engineering Intern

April 2024 – May 2024

- Streamlined design processes by partnering with clients to define clear technical requirements.
- Authored 3 comprehensive technical documentation, supporting successful project execution.
- Utilized AutoCAD to produce precise floor plans for electrical and mechanical services.

Programming Tutor, President

Sept 2021 – April 2024

- Founded and instructed Python programming courses and game development with Unity
- Prepared 80+ students for the CCC by teaching programming theories and practising DMOJ/Leetcode problems

Projects

AetherShell – AI-Powered Terminal Assistant

April 2025 – Present

- Built AI-powered terminal using Python, OpenAI API, and CLI hooks for live command execution and recovery
- Designed a memory-aware state system for non-interactive terminals using context chaining
- Reduced error by 20% by adding test-path validation and self-healing directory recovery logic

AI Noise Source Prediction and Forecast

March 2025 - Present

- Developed IoT system using Raspberry Pi Zero 2 W to track real-time noise levels across campus
- Implemented the YAMNet AI model from TensorFlow to classify noise sources in real-time
- Enabled data visualization with NumPy and Matplotlib; developing a Flask-based backend for public display

Bluetooth Tracking Robot

April 2024

- Developed a robot using a Raspberry Pi to track and follow a remote device by monitoring RSSI signal strength
- Enhanced tracking accuracy by 25% by created a signal smoothing algorithm.

Technical Skills

Languages: Python, C, C++ C#, SQL, Java, JavaScript

Technologies: Linux, HTML, CSS, TensorFlow, YOLO, Ultralytics, MySQL, Unity, Git