Anant Khanna

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Professional Summary

I'm a UBC engineering student pursuing computer engineering 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, BASc in Engineering — Expected Graduation 2028

Experience

UBC Unmanned Aircraft Systems, Software Developer — Sept 2024 - Present

- Boosted detection accuracy to 98% by integrating YOLO-based machine learning models for autonomous drones
- Improved model performance by 32% through strategic mAP analysis and optimization
- Collaborated cross-functionally to integrate software and hardware

Zoom Engineering Ltd., Junior Engineering Intern — April 2024 – May 2024

- Streamlined design processes by partnering with clients to define clear technical requirements.
- Authored 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

- Designed and instructed Python programming courses and game development with Unity
- Prepared 80+ students for the Canadian Computing Competition by teaching fundamental programming theories and practising DMOJ problems

Pacific National Exhibition, Concessions Attendant — May 2022 - March 2024

- Boosted customer satisfaction by efficiently resolving inquiries and operational issues
- Operated the point of sales system and ensured timely food and beverage delivery in a fast-paced setting

Projects

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
- Integrated Sphinx voice recognition for dynamic activation and tracking
- Developed a signal smoothing algorithm, enhancing tracking accuracy by 25%

Awards

Canadian Computing Competition Certificate of Distinction — 2022
District Authority Award — 2024
Honour Roll – Fleetwood Park — 2019–2024

Technical Skills

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

Technologies: HTML, CSS, JavaScript, TensorFlow, MySQL, NumPy, Matplotlib, Git