

# VU KHANH CAO

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## EDUCATION

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Carleton University, Ottawa, ON

Sept 2023 – Present

Bachelor of Computer Science (Honours), Artificial Intelligence and Machine Learning

GPA: 3.95/4.00

## SKILLS

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Languages C/C++, Python, Java, JavaScript, TypeScript

Frameworks React, Node.js, Express, Flask, React Native

Libraries OpenCV, TensorFlow, Keras, PyTorch

Technologies Linux, Git, Docker, AWS, MongoDB, MySQL, PostgreSQL, Android Studio

## EXPERIENCE

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Software Developer

Jun 2025 – Present

Ovenns Analytics Inc.

*Ottawa, ON*

- Built and deployed a full-stack SaaS platform (React, Node.js, Express, PostgreSQL) used by restaurant staff and customers to manage food sensitivities in real time, improving order accuracy by 30%.
- Designed dual-layer authentication (JWT tokens + CSRF tokens) in Express.js, ensuring secure multi-tenant access and protecting sensitive restaurant and customer data.
- Developed responsive UI components with React and Figma, ensuring WCAG compliance and improving mobile usability.

## PROJECTS

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JARVIS – 3D Scene Reconstruction

Jan 2025

- Reduced 3D reconstruction time for 200-image datasets to 15 minutes by building an end-to-end pipeline with Gaussian Splatting on Raspberry Pi 4 (QNX) and Dockerized GPU offloading to RTX 3060.
- Developed a React + Vite frontend with Google OAuth2 authentication, enabling secure user access and streamlined dataset submission.
- Containerized the system with Docker, improving portability and deployment consistency across devices.

Walk in the Park – Gamified Cultural Exploration App

Apr 2024

- Won Best AI in Education Hack at GenAI Genesis 2024 (250+ participants) by creating a cross-platform app that gamified cultural exploration.
- Increased demo user engagement by 40% through integration of Google Vertex AI (dynamic storytelling), Spotify API (personalized music), and geolocation services.
- Built with React Native + Flask, delivering smooth mobile and backend performance.

TRACY – Tennis Realtime Analysis Coaching

Feb 2024

- Placed 3rd Best Hack at QHacks 2024 (200+ participants) with a responsive React web app providing AI-powered tennis analytics.
- Achieved 97% ball-tracking accuracy by leveraging OpenCV + TensorFlow, enabling players to receive precise feedback in real time.
- Reduced feedback latency by 20%, improving usability during live coaching sessions.