

Kyle Nguyen

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EDUCATION

B.Sc. Computing Science, Minor in Mathematics

Expected May 2027

University Of Alberta

Edmonton, AB

Relevant Coursework

- Software Engineering (Java), Algorithms I & II, File & Database Management (SQL & MongoDB), Formal Systems & Logic, Practical Programming Methodology (C), Machine Learning I, Digital Image Processing (Python)

PROJECTS

NeuroMotion – EEG-Based Brain-Computer Interface | Python, Flask, PyTorch, MNE

- **Awarded 2nd Place** in the Standard Division at natHacks 2025, receiving \$2,000 in funding
- Collaborated in a team of six to develop an EEG-based brain-computer interface using the OpenBCI Ganglion board and PyTorch for real-time motor imagery classification via a Flask-socketIO interface
- Designed and implemented a machine learning pipeline using MNE, scikit-learn, and PyTorch for EEG feature extraction, filtering, and classification

uAlbertaMicrowave | Full-Stack Web Application

- Developed a full-stack web application to locate campus microwaves using Flask, PostgreSQL, and Leaflet
- Designed RESTful APIs with SQLAlchemy to support user-generated data, issue reporting, and admin moderation
- Deployed to Render with production PostgreSQL, handling migrations, environment variables, and scalability
- Supported **200+** user-submitted broken microwave reports, resulting in the addition of **10+** new location markers, with concurrent student usage during peak hours

Quokka Puffs Events | Android Studio, Java, Google Maps API, Firestore Firebase

- Collaborated in a team to develop a multi-user Android application for event creation, user signup, and organizer dashboards using fragments, adapters, and ViewModels
- Implemented asynchronous Firestore operations for real-time updates, query-based collection, secure data handling with hashed credentials, and optimized schemas for efficient queries
- Integrated Google Maps API for geolocation-based event hosting and built CSV export features for organizers

WORK EXPERIENCE

Code Sensei (Programming Instructor)

January 2026 – Present

Code Ninjas

Edmonton, AB

- Teach foundational programming concepts to children using MakeCode, JavaScript, Python, and Unity
- Guide students through hands-on coding projects to build problem-solving and computational thinking skills

Software Programmer Team Member

Nov 2024 – Present

Alberta Bionix

Edmonton, AB

- Develop software for an above-knee amputee (AKA) prosthetic system, **leading development of CVKAS** (Computer Vision Kinematics Analysis System)
- Design and implement a computer vision pipeline to estimate prosthetic joint angles, orientation, velocity, and acceleration using Python, OpenCV, and ArUco markers

Web Developer / Barista

August 2024 – December 2025

The Boxcar Coffeeshop

Edmonton, AB

- Manage website content including menus, pricing, and promotional materials to ensure accurate information
- Redesigned and developed a clean, user-friendly website using HTML, CSS, JavaScript, and Adobe Photoshop

SKILLS

Programming Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS

Frameworks & Libraries: Flask, React, Node.js, Socket.IO, SQLAlchemy, Leaflet

Databases: PostgreSQL, SQLite, MongoDB, Firebase

Developer Tools: Git, Linux/Unix (Bash), VS Code, Android Studio, Render, Godot, Power BI

Soft Skills: Problem solving, Communication, Team collaboration, Critical thinking, Adaptability, Attention to detail