

Amanda G. New

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EDUCATION

University of British Columbia

Bachelor of Applied Science in Engineering, intended Electrical Engineering

- Incoming transfer student in UBC Applied Science

Vancouver, BC

Expected Apr. 2030

Trinity Western University

Engineering Transfer Coursework

- GPA: 4.10/4.30
- Awards: President's Scholarship (\$6,000/year), Alumni Legacy Entrance Scholarship (\$3,000), District Authority Scholarship for Global Service (\$1,250).

Langley, BC

Sept. 2025 – Apr. 2026

RESEARCH EXPERIENCE

Trinity Western University

NSERC USRA Research Assistant – Machine Learning for RNA Sequence Design

- Conducted research on deep learning methods for RNA tertiary inverse folding, focusing on RIDER, gRNAd, RhoFold, and AlphaFold3-based reward oracles.
- Implemented a modular oracle interface for reinforcement learning experiments, enabling comparison between RhoFold and constrained AlphaFold3 no-MSA reward models.
- Ran and monitored GPU-based experiments on Canadian Digital Alliance clusters using Slurm, Linux, Apptainer, Git, and Weights & Biases.

Langley, BC

May 2026 – Aug. 2026

TECHNICAL SKILLS

Programming: Python, Java, JavaScript, Git, LaTeX

ML / Data: PyTorch, NumPy, pandas, Weights & Biases, reinforcement learning workflows

Tools: Linux, Slurm, Apptainer, VS Code, GitHub, Unity, Roblox Studio, Microsoft MakeCode

Interests: Electrical engineering, microcontroller electronics, machine learning

WORK EXPERIENCE

Code Ninjas

Computer Science Instructor

- Instructed students aged 6–14 in coding fundamentals using JavaScript, Python, Microsoft MakeCode, Unity, Roblox Studio, Minecraft modding, and robotics platforms.
- Adapted technical explanations for beginner learners and supported project-based programming lessons in a fast-paced classroom environment.

Port Coquitlam, BC

Dec. 2021 – Jun. 2025

LEADERSHIP AND ACTIVITIES

TWU Math, Engineering & Technology Club

- Supported club operations, event coordination, and promotion for engineering and technology-focused student initiatives, including hackathon planning and cross-club collaborations.

Secretary/Eng Rep, 2025 – 2026

International Collegiate Programming Contest (ICPC)

- Competed as part of a programming team to solve algorithmic problems under strict time constraints, collaborating on problem selection, solution design, debugging, and implementation.

Team Competitor

Competitive Computing Club, Archbishop Carney Secondary School

- Founded a programming club to prepare students for the Canadian Computing Competition and taught Python and computing fundamentals to 10+ students.

Founder and President, 2024 – 2025

New Hope

- Volunteered at coding camps for refugee children, teaching programming fundamentals through interactive projects and adapting lessons for students with different levels of prior experience.

Volunteer Coding Instructor

Operation Smile

- Created graphics and fundraising content for a student club supporting children with cleft palate and dental care needs; contributed to the top fundraising club in Canada for 2020–2021.

Member and Social Media Manager, 2020 – 2025

MusicxConnect Charity Ensemble

- Coordinated repertoire, practice schedules, and performances for free concerts at senior homes and care centres.

Ensemble Member, 2023 – Present

ADDITIONAL

- Coquitlam Youth Orchestra: viola and violin player, second violin principal player, 16 concerts/performances.
- High school: 96% average; Principal's List from 2020–2025; Loran Scholar Semi-Finalist.