Yash Mali

(437)-436-6354 | ymali@student.ubc.ca | Linkedin | GitHub | Website

Technical Skills

Advanced Machine Learning | Optimization | Data Structures and Algorithms | Software Engineering | Operating Systems

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, R, MATLAB, PHP, Kotlin, Rust

Libraries/Frameworks: NumPy, Pandas, TensorFlow, PyTorch, CuPy, Open–CV, React, Node.js, Flask, JUnit

Tools: SQL, Git, Docker, Visual Studio Code, PyCharm, IntelliJ, Eclipse, Linux, Bash/Zsh, Asure, Google Cloud, AWS

Experience

Automation Software Developer Sep 2024 – April 2025 (8 Months)

Lux Bio | Software Team *Python, C/C++, Open–CV, NumPy, Pandas, PySerial*

- Revamped automation systems for bioprocess engineering, eliminating control loop errors and enhancing system reliability.
- Engineered robust communication systems for sensors, pumps, motors, and valves. Developed an intuitive user interface and implemented cloud-based data backup solutions.
- Contributed to SEO efforts using Wix to enhance the company's online presence.

Undergraduate Research Assistant May – Aug 2024 (4 Months)

Research Award | UBC Engineering | Frostad Research Group *Python, PyTorch, NumPy, Open–CV, Pandas*

- Led the development of bespoke software solutions tailored to the unique challenges of multiphasic fluid experiments. Developed deep learning based particle tracking software to analyze fluid behavior efficiently.
- Engineered innovative hardware automation systems to streamline experimental procedures and enhance data acquisition accuracy.
- Collaborated closely with interdisciplinary teams of researchers and engineers to understand the project requirements, identify technological gaps, and devise effective solutions that advance research objectives.

Information Technology Helpdesk Support May 2023 – May 2024 (1 Year)

UBC Information Technology | Audio–Visual Division *Crestron Systems, Javascript, HTML/CSS, React*

- Provided technical support to faculty, staff, and students for audiovisual equipment and systems across campus.
- Troubleshot hardware and software issues, responding to service requests, and ensuring the smooth operation of audiovisual resources in learning spaces and events.

Volunteering

UBC Uncrewed Aircraft Systems Sep 2024 – Present

UBC Engineering *Python, TensorFlow, PyTorch, CUDA, NumPy, Open–CV*

- Leading the ML sub-team to compete in an international university-level autonomous drone competition.

Machine Learning Team April 2024 – Present

Beaty Biodiversity Museum *Python, TensorFlow, PyTorch, CUDA, NumPy, Open–CV*

- Utilizing machine learning and computer vision to digitize Beaty Museum's botanical samples dataset. Extracting traits and insights using deep learning based computer vision techniques.

Education

University of British Columbia Vancouver, BC

*Bachelor of Science in **Computer Science** & Co-op program* *Sep 2021 – May 2026 (16 months of Co-op)*