Bryan Huang

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Education

University of British Columbia *Sept 2021 – May 2026*
BA in Computer Science and Economics

- GPA: 4.3/4.33
- **Awards:** Chung Family Scholarship in Arts (2023), Dean's List

Experience

Software Engineer *Vancouver, BC*
MDA Space *Jan 2024 – Dec 2024*

- Developed software for large scale correlation and beam-forming as part of Canada's contribution to the Square Kilometer Array (SKA), a global initiative to build the world's next-largest telescope array.
- Achieved a 100% increase in hardware utilization efficiency by optimizing the system initialization algorithm to enable parallelization of FPGA usage.
- Overhauled the master and control system to enable multi-threaded command calls to the signal chain, enhancing processing speed and integrating critical client-required features.
- Facilitated the onboarding of new team members and provided ongoing support to the team, ensuring effective collaboration and timely resolution of technical challenges
- Transitioned from full-time co-op (Jan – Aug) to part-time (Sept – Jan) while continuing academic studies.

Technologies: C++, Python, Kubernetes, Tango Controls, Digital Signal Processing

Full-stack Developer Co-op *Vancouver, BC*
Tetra Tech *Aug 2023 – Dec 2023*

- Refactored the Flask backend of FusionMap, a B2B web-based GIS application, to an optimized Express framework, resulting in a 200% improvement in API response speed and enhancing maintainability.
- Contributed to implementing object detection on satellite imagery using PyTorch and YOLOv8, enhancing the accuracy of geospatial feature identification and optimizing analysis workflows.
- Initiated and maintained a comprehensive end-to-end test suite using Mocha and Chai, ensuring thorough and reliable testing coverage.

Technologies: TypeScript, Node.js, React, PostgreSQL, PyTorch, GIS

Teaching Assistant *Vancouver, BC*
UBC Department of Computer Science *Sept 2022 – Aug 2023*

- Taught systematic program design skills, including search algorithms, graph theory, and recursion.
- Led weekly lab sessions and hosted office hours to support students' understanding of course material and provide individualized assistance.

Projects

Hue: More Colors for Google Calendar *Github*

- Developed and published a featured Chrome extension to enhance Google Calendar functionality, with over 5,000 active users.
- Tools Used: JavaScript, Web Assembly, Node.js

Technologies

Languages: TypeScript, JavaScript, Java, C++, Python, R, SQL

Technologies: Git, Docker, Kubernetes, React, Node.js, PyTorch