

JONAH LEE

EDUCATION

🏠 **The University of British Columbia** **September 2023 – May 2029 (Expected)**
BASc in Engineering Physics, 90% GPA

WORK EXPERIENCE

🌀 **Kardium Inc.** **May 2026 – Present**
Biomedical Systems Engineering – Co-op Burnaby, BC

- Developed robust automated data processing and analysis tooling in MATLAB and Java to support medical device R&D
- Analyzed Pulsed Field (PF) ablation system performance in the lab to determine and justify new self-test limits
- Created and implemented a new proof-of-concept product to automatically generate and populate clinical procedure reports

🌀 **CCAT Collaboration** **January 2025 – April 2025**
Kinetic Inductance Detector Map-Making – Co-op UBC Vancouver, BC

- Researched and developed quick-look map-making techniques for the Fred Young Submillimeter Telescope
- Characterized and analyzed Kinetic Inductance Detector data in the spatial, temporal and frequency domain with Python
- Designed a cryogenic LED mapping PCB and aluminum collimator for CCAT's 850GHz detector array using over 5000 LEDs

🌀 **Cypress Solutions** **May 2024 – August 2024**
Software and Hardware Development Intern Burnaby, BC

- Designed an automated firmware regression testing suite using Robot Framework, ensuring product reliability, automating quality assurance and providing timely feedback to developers
- Leveraged custom hardware to verify functionality over serial, Ethernet, Wi-Fi and cellular

🌀 **Steamoji** **May 2021 – June 2023**
Learning Facilitator West Vancouver, BC

- Supervised and assisted apprentices aged 5-12 in STEAM based projects
- Managed progress through lessons and communicated results with parents and academy directors

TECHNICAL EXPERIENCE

🌀 **UBC Solar** **September 2023 – Present**
Simulation & Strategy Co-Lead UBC Vancouver, BC

- Lead project management and timelines within a large scale project and provide guidance to new team members
- Optimize solar race car performance in the American Solar Challenge, leveraging insight from data analysis and simulation

🌀 **Engineering Physics Autonomous Robot Competition** **May 2025 – August 2025**
Firmware Lead UBC Vancouver, BC

- Developed robust C++ / FreeRTOS firmware for a custom autonomous robot, encapsulating components to enable rapid iteration
- Tuned robot sensors, actuators and control: line-following PID, sensor design and calibration, rotary-encoder based driving control

SKILLS

Software	Python, Java, MATLAB, C++, Git, Linux, Object-Oriented Programming, FreeRTOS, JUnit, PyTest, Gradle, NumPy, SciPy, Pandas, TensorFlow, SQL, PostgreSQL, FastAPI, React, Docker, Robot Framework
Other	Physics, Mechanics, Circuit Design, SOLIDWORKS, Dynamics, Partial Differential Equations, Linear Algebra, Signal Processing, Data Analysis, Technical Communication, Jira, Fluent in French (DELFB2 Certified)

PUBLICATIONS

September 2026: "CCAT: LED mapping of the 850GHz instrument module for prime-cam on FYST," Proceedings of SPIE Volume 14156

ACHIEVEMENTS

December 2024: Engineers and Geoscientists BC Foundation Scholarship in Engineering

June 2024: ISED Canada Amateur Radio Certification - Basic with Honours

April 2022: DELFB2 French Language Certification - 91% (50% to pass)

