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Jonah Lee

EDUCATION

The University of British Columbia . . . . . September 2023 – May 2028 (Expected)
BASc in Engineering Physics, 90% GPA

EXPERIENCE

CCAT Collaboration . . . . . January 2025 – April 2025
Researcher – Kinetic Inductance Detector Map-Making Vancouver, BC
- Researched and developed map-making techniques for the Fred Young Submillimeter Telescope
- Performed characterization and analysis of Kinetic Inductance Detector data in 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
- Reworked PyTest testing suite to increase code coverage to 92% and improve maintainability

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

OTHER EXPERIENCE

UBC Solar . . . . . September 2023 – Present
Race Strategy & Simulation Co-Lead Vancouver, BC
- Optimize solar race car performance in the American Solar Challenge by applying quantitative strategies, leveraging insight from data analysis and Python physics models.
- Lead project management and timelines within a large scale project and provide guidance to new team members
- Develop Python code for data analysis, simulation, physics and telemetry processing

Engineering Physics Autonomous Robot Competition . . . . . May 2025 – August 2025
Software Team Lead Vancouver, BC
- Implemented robot line following algorithms: PID loops & tuning, error signal calculation, sensor design and calibration
- Encapsulated sensors into easy-to-use C++ objects (reflectance sensors, magnetometers, IMU)
- Refined a fast-growing code base with refactors, documentation, FreeRTOS integration and scheduling, peer code review

SKILLS

Software	Python, MATLAB, C++, Java, Git, Linux, NumPy, SciPy, Pandas, TensorFlow, SQL, FastAPI, Kafka, PostgreSQL, React, Typescript, GitHub, BitBucket, Jenkins, Docker, Robot Framework
Other	Physics, Mechanics, Dynamics, Partial Differential Equations, Linear Algebra, Signal Processing, Data Analysis, Technical Communication, Jira, Fluent in French (DELF B2 Certified)

ACHIEVEMENTS & CERTIFICATIONS

- **December 2024**: Engineers and Geoscientists BC Foundation Scholarship in Engineering
- **June 2024**: ISED Canada Amateur Radio Certification - Basic with Honours
- **April 2022**: DELF B2 French Language Certification - 91% (50% to pass)

Last updated: January 06, 2026