

Jonah Lee

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Education

Engineering Physics | University of British Columbia (91% GPA)

September 2023 - May 2028

Relevant Coursework: CPEN 221 (Principles of Software Construction), ELEC 221 (Systems & Signals), ENPH 253 (Introduction to Instrument Design), ENPH 353 (Engineering Physics Project I, Upcoming)

Experience

Researcher & Software Developer | [UBC Physics & Astronomy](#)

January 2025 - April 2025

- Researched and developed map-making techniques for the Fred Young Submillimeter Telescope as part of the CCAT collaboration
- Performed characterization and analysis of Kinetic Inductance Detector data in Python
- Designed a cryogenic LED mapping PCB and aluminium collimator for CCAT's 850GHz detector array using over 5000 LEDs

Software and Hardware Development Intern | [Cypress Solutions](#)

May 2024 - August 2024

- 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

Other Experience

Race Strategy & Simulation Co-Lead | [UBC Solar](#)

September 2023 - Current

- 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 Robot Competition | [ENPH 253 Firmware on Github](#)

May 2025 - Aug 2025

- Implemented robot line following algorithms: PID loops & tuning, error signal calculation, reflectance 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 & Technologies Python, NumPy, SciPy, Pandas, SQL, FastAPI, Kafka, PostgreSQL, React, Typescript, MATLAB, C++, Git, GitHub, Linux, C, Java, Excel, BitBucket, Jenkins, Docker, Robot Framework

Other Physics, Data Analysis, Technical Communication, Jira, Monday, 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

November 2023: BC Achievement Scholarship & District/Authority Scholarship

April 2022: DELF B2 French Language Certification - 91% (50% to pass)