

Job Posting:172016 - Position: F25 Embedded Systems & Electrical Engineer 172016B

Co-op Work Term Posted: 2025 - Fall
App Deadline 08/29/2025 09:00 AM
Application Method: Through UBC Science Co-op
Posting Goes Live: 08/19/2025 02:28 PM
Job Posting Status: Approved

ORGANIZATION INFORMATION

Organization Bayes Studio
Address Line 1 #12, 704-West 7th Ave
City Vancouver
Postal Code / Zip Code V5Z 1B8
Province / State BC
Country Canada

JOB POSTING INFORMATION

Placement Term 2025 - Fall
** Job Title ** F25 Embedded Systems & Electrical Engineer 172016B
Position Type Co-op Position
Job Location Vancouver, BC
Country Canada
Duration 4 months
Work Mode Hybrid
Salary Currency CAD
Salary 3700.0 per month for 40 Major List
Salary Range \$ 3200-3700
Job Description

In this role, you will take ownership of embedded software and hardware development for Bayes Studio's UAV and stationary platforms. You'll be working with Python on Linux-based embedded systems, integrating sensors and electronics, and ensuring reliable communication and control. You will spend most of your time writing and optimizing embedded code, but you'll also be hands-on with electronics, wireless systems, and UAV flight controllers.

Key Responsibilities

- Embedded Software Development - Write and maintain Python applications on Linux-based embedded platforms, with a strong focus on asynchronous programming for real-time performance.
- Hardware & Sensor Integration - Interface with and calibrate thermal, optical, and environmental sensors; work with electronics, circuits, and embedded boards.
- Communication Systems - Implement and support wireless protocols, including LoRaWAN, Wi-Fi, and LTE, to enable long-range and reliable data transmission.
- Control Systems & UAV Integration - Work with flight controllers (ArduPilot, PX4, Speedybee) and support control algorithms for UAV stability, navigation, and autonomy.
- System Optimization - Apply asynchronous programming and optimization techniques to handle multi-stream data efficiently and ensure low-latency operations.

- Testing & Validation - Conduct lab and field tests for embedded systems and communication hardware, analyzing performance and troubleshooting issues.
- Documentation & Compliance - Document hardware/software integrations, testing procedures, and ensure compliance with relevant safety and communication standards.
- Collaboration - Work with AI/ML engineers, mechanical engineers, and operations staff to ensure smooth system integration and field deployment.

Job Requirements

Must-Have Skills:

- Strong proficiency in Python, including asynchronous programming
- Hands-on experience with electronics, circuits, and sensor integration.
- Knowledge of hardware-software communication and real-time data handling.
- Work is hybrid (being comfortable with commuting to Pint Grey Campus as needed)

Nice-to-Have Skills:

- Experience with LoRaWAN or other low-power long-range communication systems.
- Knowledge of control systems engineering and system dynamics.
- Familiarity with flight controllers (ArduPilot, PX4, Speedybee).
- Background in UAV platforms, edge computing, or real-time monitoring systems.

Soft Skills:

- Strong problem-solving mindset and ability to work independently.
- Comfortable in a startup environment with fast iteration cycles.
- Effective communicator and collaborative team player.
- Willingness to participate in hands-on lab and field work.

Citizenship Requirement Canadian & Permanent Residents & Refugees Preferred

Position Start Date September 08, 2025 12:00 AM

Position End Date December 31, 2025 12:00 AM

APPLICATION INFORMATION

Application Procedure Through UBC Science Co-op

Cover Letter Required? Optional

Address Cover Letter to Hiring Manager