Bardia Parmoun

bardiaparmoun@gmail.com | bardiaparmoun | bardia-p | bardia-p.github.io

Education

Carleton University — **Sept. 2019 – PRESENT**
Bachelor of Software Engineering (Co-op) — *Ottawa, Canada*

- **GPA:** 11.89/12 (3.99/4.0) | **Graduation Date:** 2024/04/30 | **Awards:** Dean's List and Carleton Academic Scholarship
- Teaching assistant for Computation and Programming (2020 & 2023) and Data Management (2021 & 2023).

Skills

Programming Languages: Python, Java, C, C++, Swift, JavaScript, Bash, SQL, PHP, Racket, Visual Basic

Technologies: Linux, SwiftUI, HTML/CSS, Bootstrap, jQuery, Node, Express, EJS, Mongo, PostgreSQL, MySQL, Docker

Tools: Git, Perforce, Jira, Eclipse, IntelliJ, PyCharm, VSCode, Xcode, Vim, GDB

Experiences

Microsoft - The Coalition Studio — **June 2023 – Aug. 2023**
Software Engineer Intern - Rendering — *Vancouver, Canada*

- Implemented a hard drive benchmarking tool for **The Coalition Studio's** custom **Unreal Engine 5** using **C++**.
- Integrated two upscaling frameworks into the engine for evaluation and added a custom console variable for them.
- Helped develop a custom wind generator tool for the rendering team using **C++** and **HLSL**.

Apple — **May 2022 – Dec. 2022**
Software Engineering Intern - Wireless Technologies & Ecosystems — *Montréal, Canada*

- Developed internal tools for **Tap to Pay on iPhone**, using **Swift, SwiftUI, and Objective-C**.
- Participated in the verification of a Tap to Pay on iPhone framework and its new features for **iOS 16.0**.

BlackBerry QNX — **Jan. 2022 – April 2022**
Core OS Software Development Student — *Ottawa, Canada*

- Performed various unit tests for the **QNX kernel** and **filesystem**, using **C** and **gcov**, achieving **100%** coverage.
- Designed and conducted **regression tests** for the **/proc filesystem**, using **C** and BlackBerry's testing API, following **Automotive SPICE** to ensure the customer needs are being met and the components are behaving as expected.

Ross Video — **May 2021 – Dec. 2021**
Software Developer - softGear — *Ottawa, Canada*

- Built two internal testing tools for the softGear team, AES67 Player and Recorder, to convert **.raw audio** to **AES67 streams** and generate custom tones, using **C++, JSON, HTTP, and Docker**; improved softGear's testing capacity by **20%**.
- Accelerated the release of two of softGear's products, **RSAP** and **NWE-IP**, by resolving bugs and adding new features.

Nokia — **July 2018 – Aug. 2018**
High School Intern — *Ottawa, Canada*

- Created two calculators for Nokia's **VNS/VCS services** with **Macros** and **VBA**; improved sales automation.

Projects

Real-Time Elevator Simulator | *Java, UDP, C-LOOK, State Pattern, XML, Serialization, Swing* — **April 2023**

- Simulated an elevator control system in **real-time** using **Java threads** following the **state design pattern**.
- Utilized **UDP** to connect the components and implemented the **C-LOOK** algorithm to schedule the elevator requests.

LIBER: Online Bookstore | *PostgreSQL, HTML/CSS, PHP, Apache* — **Jan. 2022**

- Developed an online bookstore website using **PHP and PostgreSQL** that allows users to order books online.
- Designed and implemented the database in **PostgreSQL** with proper triggers, functions, views, and procedures.

Embedded Pong Controller | *C, Python, Pygame, UART, GPIO, Serial* — **Dec. 2021**

- Made an embedded controller, using a **MSP432R board** and the **UART protocol**, for a Pong game written in **Python**.
- Configured the LEDs, switches, and serial port with proper GPIO and interrupts, in **C**, to achieve **real time** responses.

Terminal Spell Checker | *C++, Bash* — **July 2021**

- Wrote an **object oriented** program in **C++** to scan a given text for spelling errors and provide suggestions.
- Created a **command line interface (CLI)** with various commands for scanning the input, applying suggestions, etc.

Extra Curriculars

Systems and Computer Engineering Society (SCESoc) — **Jan. 2023 – April 2023**
Vice President Academic — *Ottawa, Canada*

- Organized and held academic workshops and events for the Systems and Computer Engineering students.