

# Emilio De Jesús Hernández

Emilio.dejesus@upr.edu | www.linkedin.com/in/emiliodjhse | 1+ (787) 314-3002 | 235 Miguel Rivera, Est del Golf, Ponce, PR 00730

## Education:

**University of Puerto Rico - Mayagüez Campus, BSc in Software Engineering**

**GPA: 3.20 / 4.00 Graduation: June 2024**

## Experience

**Artisoft Labs LLC - Full Time C# Developer** (Nov 2023 - Feb 2024)

- Created Windows Forms and console applications for POS software using C# and .NET Framework.
- **Maintained project documentation and conducted code reviews for adherence to standards.**
- Resolved database conflicts and managed IDs and primary keys in MySQL.
- Collaborated with the IT team to address system requirements and requests.

**Raytheon United Technologies Intern** (May 2022 - May 2023)

- Automated and optimized database tasks using Python scripts, integrating APIs and SQL queries.
- Formulated ETL processes for data extraction, transformation, loading and parsing processed large data sets to generate actionable insights.
- Created Qlik dashboards to present user data to board members.
- Got involved with other interns and senior developers on team driven projects.

## Projects and Technical Experience

**Rewardry (Capstone Project) - Full Stack Developer** (Fall 2023)

- Engineered a rewards-based application aimed at enhancing customer loyalty for local businesses in a college town setting.
- Designed and implemented the user interface using Next.js and Material UI.
- Utilized Firebase for backend services, including database management, authentication, and hosting.
- Ensured accessibility compliance by addressing issues identified through Web Accessibility Evaluation Tool (WAVE) and implementing necessary adjustments.
- **Documented technical specifications, user manuals, and privacy policies.**

**Email Web App (DB Python/SQL Project)** (Fall 2022)

- Built the Entity-Relationship (E-R) model and table diagrams to represent the data structures required for the email application.
- Utilized Python and Flask to create a robust backend system following the Model-View-Controller (MVC) design pattern.
- Developed RESTful API endpoints for various functionalities, including user registration, email creation, inbox and outbox management, and email search and filtering.
- Features included email categorization, email status tracking (read/unread), and user-specific email statistics.

**Embedded Systems Developer – MSP430 Project** (Spring 2022)

- MSP430FR6989 Launchpad app integrating LCD display, interrupt handling, and timer functionalities.
- Implemented a random letter generator for gameplay, with user interactions to replicate the letter using button presses to control LCD segments.
- Designed the system architecture for low-power operation and efficient interrupt management.
- Implemented modular code with subroutines for various functionalities, ensuring maintainable codebase.
- Utilized interrupts for real-time button state reading and debouncing for accurate input handling.
- Integrated a timer-based chronometer to track and display elapsed time in minutes and seconds.
- **Delivered comprehensive documentation including system design, subroutine details, and user manual.**

**Round-Robin Scheduler (Java Data Structures project)** (Fall 2021)

- Simulated a scheduler to manage random time-completion tasks using a circular linked list.
- Planned efficient task allocation and time management algorithms.

**Pac-Man (C++ OOB project)** (Spring 2021)

- Improved an interpretation of Pac-Man with additional functionality such as power-ups and invisible enemies using OOP to compose game mechanics and logic using C++.

## Technical Skills

- **Proficient Programming Languages:** Python, C#, Java, C++, Assembly.
- **Web Development:** React (HTML, CSS, JavaScript), Python (Flask)
- **Software Development:** C# WinForms and Console Applications
- **Tools:** Git/GitHub, Qlik Sense, JetBrains (WebStorm, PyCharm, DataGrip), Postman, Bash

## Professional and Soft Skills

**Fully Bilingual: Fluent in Spanish and English**

**Presentation and Communication Skills**

Technical Writing and Documentation

Data Analysis and Statistical Analysis

Teamwork and Cross-Functional Collaboration

Time Management and Prioritization