

MARGO BONAL

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P.O. Box 85, Hickory, PA 15340

Objective: Apply knowledge, skills and techniques used in computer science to assess and evaluate technical problems. Analyze, design, and implement programming and software systems.

Education

Bachelor of Science – Computer Science Pennsylvania Western University, California PA

(GPA: 3.70, Expected Graduation Date: April 2026)

Course Work

CMSC 3040 – Data Structures

CMSC 3140 – Analysis of Algorithms

CMSC 2040 – Object-Oriented Programming

CMSC 3180 – Computer Networking

CMSC 4000 – Operating Systems

CMSC 4080 – Structures of Program Language

Experience

Encompass Remote INC., Hybrid Internship

Full Stack Developer Intern (May 2025- August 2025)

- Collaborated with the Director of Technology and a cross-functional team to build and maintain HIPAA-compliant medical software applications using modern frameworks.
- Developed front- and back-end features with secure API integration, contributing to scalable, reliable healthcare systems.
- **Technologies:** Python (Flask), Java, HTML/CSS/JavaScript, React, Node.js, TypeScript, Spring Boot, Maven, Docker, MSSQL, Azure DevOps, EVBS Encryption, AWS, GitHub, SSH, TensorFlow/PyTorch, API integration, MCP server, Markdown, LaTeX.

Encompass Remote INC. & Laura Ohlund (Carnegie Mellon University), Remote Internship

Software Engineer Intern (July 2024)

- Built an internal file-sharing platform supporting secure transmission and storage of medical-grade documents.
- Implemented encryption practices aligned with HIPAA, cybersecurity, and Hi-Trust standards.
- Developed front- and back-end integrations, APIs, libraries, and user interface components.
- Collaborated with a cross-functional intern team and documented system architecture.
- Presented the final product to IT leaders and strategic partners for roadmap integration.

A Storage Place, Hickory PA

Security Systems & Technology Management (2020 - Present)

- Lead operational security of a closed-circuit network
- Completed daily monitoring of facility property
- Perform preventative, predictive, and routine inspection maintenance
- Manage the dispersion of tasks to team members with the relevant skill

Web Development & Social Media Manager (2018 - Present)

- Develop and maintain company's website
- Curate content across social channels ensuring cohesive online branding
- Track, analyze, and report weekly analytics, KPIs, and SEO to management

Skills

- **Languages:** C++, C, Python, HTML, CSS, JavaScript, COBOL, Java, API, Prolog, Assembly
- **Environments:** Linux OS, Windows OS, Virtual Box, Docker, WSL
- **Development Tools:** Vs Code, Visual Studio, Dev C++, MinGW, MSYS, MySQL, MSSQL, Git/GitHub, Azure DevOps, Hibernate, Flask, Vite, Vector Database, Node.js, React, Maven, EVBS, NI Multisim, KiCad
- **Technical:** Soldering, Wire Wrapping

Awards/Societies

- CS Advisory Board Student Representative, PennWest University – California (2024-Present)
- Vulcan Merit Scholarship (2022 - Present)
- Dean's List/ Highest Honors (2022 - Present)
- Vulcan Programming Club, PennWest University – California
- United States Dressage Federation: Member
- 65 hours of volunteer work through 4-H

Project Highlight

CareSync - CardioLink (May 2025- August 2025)

Encompass Remote Internship Project

- A specialized branch of the CareSync application, designed to manage cardiac implantable and wearable devices, as well as associated patients and device data.
- EVBS, Envelope Verification Based Security – encrypted login
- Docker Containerized MSSQL Database

Bank Management System (July 2024-August 2024)

Individual Project, Language: Java

- Simulate bank management system with oriented approach, 13 file/class
- Login process, ATM graphics, mini statement, withdraw/deposits
- Implement MySQL database to store user login credentials
- Implement Swing and APIs

Mr. Cowboy (March 2024- May 2024)

Group Project, Language: Python

- 2D Platform Game, Arena Battle
- Created original concept art (Sprite Frames/environmental)
- Multi-filed object-oriented design, implemented classes for modular actions
- Game physics/ frame rate/ multiple game states

Database Program (April 2024)

Group Project, Language: C++

- Implement Chain Hashing to sort valid integers into an array of 7 linked lists
- Inheritance to derive database class from list class for data protection
- Implementation of error/validity check
- 5 option menu

Technical:

Intel 8085 Single Board Computer (Jan 2024- May 2024)

Project led by Dr. Anthony S. Pyzdrowski

Skills Acquired:

- Reading/ Interpreting Electrical Component Datasheets
- Create Schematics, Wiring Diagram, PCB Layout
- Soldering, Wire Wrapping
- Programming/ Debugging UARTs