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EDUCATION

University of Florida, Herbert Wertheim College of Engineering | Gainesville, FL

Bachelor of Science in Computer Science | Expected Graduation May 2027 | Current GPA: 4.0 | Honors Program

RELEVANT COURSEWORK

Data Structures and Algorithms, Computer Organization, AI Fundamentals, Discrete Structures, Computational Linear Algebra, Problem Solving with Computer Software, Introduction to Software Engineering, Engineering Statistics, Information and Database Systems, Operating Systems, Business Analytics and AI, Human-Computer Interaction, Algorithm Abstraction and Design, Intro to VR, Computer Networks, Programming Language Concepts

CERTIFICATIONS & CLEARANCE

- Active Top Secret Security Clearance with Polygraph
- Artificial Intelligence Fundamentals and Applications – University of Florida -Dec 2025
- CompTIA Security+ (SY0-701) – July 2025

EXPERIENCE

Federal Bureau of Investigation (FBI)

(FBI Honors Internship Program)

06/2026 – 08/2026

- Collaborated with cross-functional teams to support a variety of operational and analytical initiatives.
- Participated in training across multiple investigative and intelligence functions, including surveillance and interdepartmental operations.
- Designed and implemented Python scripts to automate data processing.
- Performed research and compiled analytical findings in support of cases.

TECHNICAL SKILLS

Languages: C++, Python, Java, JavaScript/TypeScript

Frameworks/Tools: React, Next.js, Node.js, Express, Tailwind, shadcn/ui, Vercel

Databases: PostgreSQL, MongoDB, SQL, Drizzle ORM

Systems & Security: Linux, POSIX, FUSE

Other: Git, Agile/Scrum, Secure Software Development

TECHNICAL PROJECTS

- **WAD File System - Userspace Daemon | C++, FUSE API, POSIX, Linux**
 - » Engineered a C++ library and FUSE-based daemon to mount WAD binary files as a functional Linux filesystem, utilizing a hierarchical tree structure.
 - » Implemented low-level POSIX system calls (pread, pwrite, ftruncate) to perform complex data shifting, descriptor management, and real-time lump data manipulation
- **Verdant - Environmental Risk Mapping Platform - Developer | Next.js, TypeScript, React, PostgreSQL, Clerk, Google Maps API, OpenAI API, Drizzle ORM, Vercel**
 - » Co-developed an interactive web app that visualizes U.S. county-level environmental risks, utilizing a scalable serverless PostgreSQL database via Neon and Drizzle ORM.
 - » Built a responsive UI with Tailwind CSS and shadcn/ui, integrating Google Maps and OpenAI APIs with secure backend authentication.
- **MaxWash - Interactive 3D Web Car Wash Simulation | Unity, C#, WebGL, URP**
 - » Engineered an interactive 3D simulation in Unity, deployed to the web via WebGL. Developed C# scripts for complex mechanics, including a dynamic day/night cycle and precise physics-based tool interactions.
 - » Utilized the Universal Render Pipeline (URP) and custom shaders to deliver real-time visual feedback while maintaining performance across varying browser constraints.
- **BankOnFood - Donation Management Platform | Next.js, React, Node.js, Express, MongoDB**
 - » Developed a full-stack web application to facilitate donation-matching and inventory visibility for local food pantries. Implemented CRUD operations for secure inventory management and interactive map features.

LEADERSHIP & SERVICE

Health First, Viera Hospital | Melbourne, FL

Surgical Unit Support Volunteer/ Trainer

06/2021 – 04/2023

The Children's Hunger Project | Melbourne, FL

Director of Events

08/2022 – 05/2023

- Provided logistical and non-clinical support to surgical teams in a fast-paced environment.
- Trained 10+ incoming volunteers on patient-care protocols
- Directed volunteer operations and donation logistics for The Children's Hunger Project.
- Organized fundraising events raising \$3,000+ for local children

CLUBS/MEMBERSHIPS

- UF Society of Hispanic Professional Engineers (SHPE) – Member
- UF Association for Computing Machinery (ACM) – Member
- UF Society of Automobile Engineers (SAE) - Gator Motorsport – 2023-2025

HONORS & AWARDS

- UF Dean's List – Fall 2023
- AP Capstone Diploma & AP Scholar with Distinction
- Benacquisto Scholarship Recipient
- UF Presidential Gold Scholarship Recipient

CHECK OUT MY PROFILES:



<https://github.com/Carlo-Fr>

<https://www.linkedin.com/in/carlo-fraley/>