William Blake Crawford

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EDUCATION

University of Florida

Gainesville, Florida

Bachelor of Science in Computer Science

Expected May 2026

Bachelor of Science in Mathematics

GPA: 4.00/4.00

Relevant Coursework: Programming 1 & 2 (C++ & Python), Data Structures and Algorithms

TECHNICAL SKILLS

Languages: C++, CSS, HTML, JavaScript, Lua, Python

Tools and Frameworks: Flask, Firebase, Git, Leaflet.js, Node.js, Pandas, PyTorch, React.js, Scikit-learn, Vercel

PROJECTS

Gainesville Crime Heatmap

crwfrd.github.io/#gainesville-crime

- A web app highlighting top crime locations and emergency help in Gainesville, tailored to user filters.
- Implemented the interactive map and user interface using Flask, JavaScript, HTML/CSS, and Leaflet.js.
- Created an algorithm to convert 210k crime points to a latitude-longitude array paired with offense count.
- Sorted offense count array using heap/shell sort, simultaneously calculating distinct sort operation costs.

Strange Showdown

crwfrd.github.io/#strange-showdown

- A free-for-all round-based fighting game made using **Roblox Studio** engine and **Lua** coding language.
- Wrote an API to manipulate a custom-made set of checks/values on each player model.
- Formulated game flow to run rounds, prompt GUI, incorporate new players, and update player datastore.

GatorRelator

crwfrd.github.io/#gator-relator

- A **React-based** website for UF alumni to connect via shared majors, years, organizations, and workplaces.
- Constructed a Firebase Firestore database to organize user information, indexed by FireAuth UIDs.
- Implemented a direct messaging interface between users, storing unique message IDs in Firestore

EXPERIENCE

University of Florida CISE

Gainesville, FL

Teacher Assistant, Programming Fundamentals 1

Jan. 2024 - May 2024

- Taught weekly sections with 50 students about object-oriented programming, looping/branching, procedural/data abstraction, and program modularity through Python.
- Graded and identified algorithm errors in varying programming exams, projects, and homework.
- Prepared review material and presentations on programming fundamentals for ~500 students.

INVOLVEMENT

Dream Team Engineering (DTE), UF QPSi AI Innovations

Gainesville, FL

Software Engineer, Clinical Agent-Based Machine Learning Model

Aug. 2024 - Present

- Developing a machine learning model leveraging **Temporal Graph Neural Networks (TGNN)** to create real-time clinical recommendations by analyzing patient characteristics and historical data.
- Building a robust data pipeline with **pandas** for data preprocessing, cleaning, and feature engineering.
- Integrating **PyTorch** to train the TGNN model, using time-series data to improve accuracy/performance.

Freshman Leadership Engineering Group (FLEG)

Gainesville, FL

Collegiate Director

May 2024 - Present

- Leading 10 undergraduate students in planning monthly events to promote student collegiate growth.
- Holding bi-weekly office hours to aid freshman engineers in their curricular decisions and pursuits.
- Working with a 20-member executive team to make decisions on behalf of the entire organization.