

Nathan West

imnathanwest@gmail.com | 727-459-5304 | [GitHub](#) | [LinkedIn](#)

EDUCATION

University of South Florida

May 2021 – May 2025

Bachelor of Science (B.S.) in Computer Science

Coursework: Data Structures & Algorithms, Operating Systems, Software Engineering, Intro to AI, Secure Coding, Database Systems

EXPERIENCE

Bell Automation Systems

September 2024 – Present

Software Engineer Intern

Remote

- **Reduced API response times by 35%** by optimizing query logic and implementing caching across **50+ Express.js endpoints** handling real-time weather data.
- **Improved user satisfaction by 70%** by redesigning **React/CSS components** for StormAlert's dashboard.
- **Increased coverage by 150%** by integrating **three new Mapbox geolocation data sources**, extending support from Arizona to Texas and serving **10K+ additional users**.
- **Accelerated deployment** by collaborating with QA and DevOps teams to automate testing and CI/CD workflows.

CodeWizardsHQ

May 2024 – Present

Programming Instructor

Remote

- **Taught and mentored 200+ students in Python, Java, and web development**, emphasizing proper practices.
- **Designed projects and exercises**, mirroring professional workflows, maintaining a **90% student retention rate**.
- **Led small-group capstone projects** simulating real-world development teams, guiding students through Agile workflows.

PROJECTS

FridgeIQ | Swift, SwiftUI, OpenAI API, Firebase

- **Developing an iOS application** for food management, generating **personalized meal suggestions** using **OpenAI's GPT AI**, based on users' current fridge inventory.
- **Built intuitive SwiftUI interfaces** for adding, editing, and tracking available ingredients in real-time, enhancing accessibility.
- **Implemented Firebase integration** for **user authentication** and **cloud-based food storage**, syncing data across devices.
- Currently implementing **machine learning-based receipt analysis**, enabling automatic food recognition from images.

TripWise | Ruby (Rails), PostgreSQL, JavaScript, React, Google Maps API, OpenAI API

- **Built a full-stack AI-powered trip planner** that generates **personalized itineraries, budgets, and location ideas**.
- **Developed a scalable Rails API backend** with PostgreSQL for **user authentication and trip data management**.
- **Enhanced location and route accuracy** by integrating **Google Maps API** for distance, travel time, and costs.
- **Improved usability and responsiveness** by designing **React front-end components** with modular architecture.

Stampede | Ruby (Rails), PostgreSQL, JavaScript, Bootstrap, Git

- **Led a 4-member Agile team** to design and deploy a **full-stack campus marketplace** in Rails, enabling peer-to-peer item exchanges and achieving **50% adoption among the student body at peak usage**.
- **Integrated APIs with Rails and PostgreSQL** to handle **secure user authentication, listings, and transactions**.
- **Enhanced cross-platform usability** by developing **responsive JavaScript/Bootstrap front-end components**.
- **Streamlined collaboration and release cycles** by implementing **Git workflows and Agile sprints**, improving feature delivery.

LEADERSHIP EXPERIENCE

RoboBulls | University of South Florida

August 2023 - August 2024

- **Led a 5-member developer team** to design and program an **autonomous navigation robot**.
- **Integrated LIDAR sensors** to enable real-time mapping and optimized obstacle detection accuracy by **50%**.
- **Collaborated with the hardware team** to calibrate embedded systems to refine sensor feedback loops, improving stability.

SKILLS

- **Languages:** C, C++, C#, Python, Java, JavaScript, Ruby, SQL, Swift
- **Frameworks & Tools:** React, Node.js, Express.js, Ruby on Rails, Firebase, PostgreSQL, MySQL, Git, Figma