

Ibrahim Mirza

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EDUCATION

University of Central Florida

Orlando, Florida

Bachelor of Science in Computer Science, Minor in Mathematics

Graduated August 2026

- o **Achievements:** President's List, Dean's List, GPA: 3.63
- o **Related Coursework:** Data Structures & Algorithms, Machine Learning, Artificial Intelligence, Systems Software, Robot Vision, Object-Oriented Programming

PROJECTS

Battlespace Visualization and Interaction Assistant

Orlando, Florida

Python, FastAPI, PostgreSQL, Docker, GitLab CI/CD

Jan 2026 - August 2026

- Built a local AI assistant that reads live system state and internal docs and gives operators step-by-step troubleshooting instructions so they don't have to go through manuals, which cut troubleshooting time from 45 minutes to 5 minutes
- Designed a PostgreSQL database with 10+ related tables that stores system events, session history, and the knowledge base the assistant searches
- Worked in a agile environment where an event pipeline was built that handled thousands of real-time system events, polling every 5 seconds
- Set up GitLab CI/CD so every commit was built, tested, and deployed automatically, and packaged the backend in Docker so it ran the same on any machine

Pathfinder Visualizer

Orlando, Florida

C++, SFML

March 2025 - Dec 2026

- Implemented A*, Dijkstra, and BFS pathfinding algorithms to visualize shortest-path calculations across weighted grid environments
- Added terrain costs, obstacles, and step-by-step animation. In my tests, A* explored fewer cells and had a more efficient route than BFS on the same grid
- Structured the code so a new algorithm or terrain type can be added without changing the existing ones, which allowed me to add BFS in only an additional 90 lines of code

Stock Predictor

Orlando, Florida

React, Python, REST APIs

Jan 2025 - June 2025

- Built a stock analysis tool that combines news sentiment with technical indicators to mark support and resistance levels and show how confident the prediction is
- Pulled live market data through REST APIs and calculated moving averages to generate buy and sell signals
- Built backtesting charts that replay past buy and sell signals against actual price moves, so users can judge how the model would have performed

SKILLS

Languages: Python, C++, JavaScript, Bash

Frameworks: React, FastAPI, Flask, Node.js

Databases: PostgreSQL, MySQL, MongoDB

Tools & DevOps: Docker, Git, GitLab CI/CD, Linux, AWS

AI/ML: Agentic AI, RAG, LLM Integration, Prompt Engineering

EXPERIENCE

Awaaz Entertainment

Orlando, Florida

Lead Systems Technician

May 2020 – Present

- Configure and maintain AV systems, servers, and network infrastructure for 50+ live events while leading junior technicians through setup and troubleshooting procedures