Tameem Tantawy

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EDUCATION

University of South Florida

Tampa, FL

Bachelors in Computer Science Expected Graduation: May 2027

GPA: 3.86/4.0

Relevant Courses: Programming Concepts (Python), Program Design (C), Computer Organization, Object-Oriented

Programming (OOP), Data Structures, Algorithms (Princeton University)

Achievements: USF Green and Gold Presidential Awards, USF Dean's List (Fall 2023)

Experience

Co-Founder & Lead Developer

May 2024 - Present

Masjidy Tampa, FL

- Co-developed a cross-platform mobile application using React Native and Django to connect users with local mosques, manage donations, prayer times, announcements, and events.
- Implemented dynamic frontend UI components and navigation using React Native and NativeWind to enhance user experience.
- Developed an algorithm to suggest mosques based on user location, enhancing relevance and engagement.
- Architected a scalable backend system with Django's REST Framework, leveraging Redis for caching to decrease data retrieval times by 30% and utilizing PostgreSQL for consistent and reliable data storage.
- Managed deployment processes and conducted thorough testing using tools like **Postman**.
- Successfully pitched the app to 30+ mosques in the Tampa Bay area, securing interest and commitment for testing.

Software Engineering Volunteer

April 2024 – May 2024

Remote

- Shawarma Bono • Developed a dynamic Full-Stack website for a local shawarma restaurant using the MERN stack, enhancing digital customer engagement.
 - Developed the web application using **React.** is working as the front end and implemented authentication using **Context** API while storing and retrieving data from MongoDB managed through a RESTful API that is designed by Node.js and Express.js to serve as the backend with functionality verified through Postman.
 - Implemented JSON Web Tokens for secure authentication processes, ensuring robust security for user data and transactions.
 - Collaborated closely with restaurant owner to identify requirements, leading to a tailored website that improved total orders received by 30%, resulting in an increase in revenue of \$24,000.

Projects

Pork-Free Dining Finder | React, FastAPI, PostgreSQL, Selenium, BeautifulSoup

- Developed a web scraper using **Selenium** and **BeautifulSoup** to gather and categorize food data from the 3 USF dining
- Implemented a backend with FastAPI to process and serve the scraped data, and integrated PostgreSQL for data storage.
- Designed a **React.is** frontend to display categorized food data, indicating whether foods contain pork or not so people can get precise information.
- Set up a scheduling mechanism to run the scraper at set times and update the database, ensuring up-to-date information.
- Packaged and deployed the backend serverlessly using Docker and AWS Lambda for efficient and scalable deployment.

Cliff Diver AI | Python, PyGame, NEAT-python algorithm

- Developed an interactive diving game from scratch using Pygame utilizing the NeuroEvolution of Augmenting Topologies (NEAT) algorithm to dynamically train an agent to master the game mechanics.
- Implemented complex game physics to simulate realistic diving dynamics, enhancing the AI's learning experience and game authenticity.
- Analyzed when the AI reached its maximum fitness which was after an average of 80 generations.

TECHNICAL SKILLS

Programming Languages: C, Python, JavaScript, HTML, CSS

Frameworks/Libraries: React.js, React Native, Node.js, Express.js, Django, FastAPI, NEAT-python, Pygame, Selenium,

BeautifulSoup

Database Technologies: PostgreSQL, MongoDB

Developer Tools: Git, Github, Github Desktop, Visual Studio Code, Postman, Docker, Amazon Web Services Lambda, EC2, S3

Languages: English (fluent), Arabic (fluent)