Tameem Tantawy

813-956-1510 | tameemtantawy@usf.edu | linkedin.com/in/tameem-tantawy | github.com/tameemtantawy

Education

University of South Florida Tampa, FL
Bachelors in Computer Science *Expected Graduation: May 2027*

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
Shawarma Bono *Remote*

- 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.js** 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 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%**.

Projects

Pork-Free Dining Finder | *React, FastAPI, PostgreSQL, Selenium, BeautifulSoup, Docker, AWS Lambda*

- Developed a web scraper using **Selenium** and **BeautifulSoup** to gather and categorize food data from the 3 USF dining halls.
- Implemented a backend with **FastAPI** to process and serve the scraped data, and integrated **PostgreSQL** for data storage.
- Designed a **React.js** 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)