Steven DeFalco

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Education

Stevens Institute of Technology — Hoboken, NJ
MBA & MS in Applied Artificial Intelligence — *Jan. 2024 – Current*
BS in Computer Science, Highest Honors (GPA: 3.86) — *Sep. 2021 – Dec. 2024*

Marine Academy of Science and Technology — Highlands, NJ

Experience

TCE — Great Neck, NY
Innovation Engineering Intern — *May 2024 - Aug. 2024*

- Developed React-based web app integrated with Node.js backend using Azure HTTPTrigger functions to automate tunnel clearance calculations, ensuring MTA compliance and streamlining engineering validation processes.
- Developed mobile-optimized Progressive Web App (PWA) using React with StaleWhileRevalidate caching for offline functionality and native-like iOS installation, enabling engineers to calculate tunnel clearance on-site without internet.
- Led the automation of migrating 1,000+ courses between learning management systems using Python scripts with Pandas data management, API integration, and Playwright web scraping, ensuring transition without downtime.
- Developed Python data pipeline as Azure timer function to automatically sync employee data between BambooHR and LearnUpon learning management system, ensuring accurate course assignments reflecting HR changes in real time.
- Developed a React web page to display high quality drone imagery of large construction sites, incorporating a dynamic access control system to restrict visibility only to the relevant project teams.

Stevens Institute of Technology — Hoboken, NJ
Computer Science Course Assistant — *Sep. 2022 - May 2023*

- Instructed and supported students in "Introduction to Computer Science" and "Data Structures" courses.
- Collaborated with peers and the professor to design and maintain a comprehensive curriculum for 15-week semesters.
- Facilitated weekly lab sessions, code demonstrations, and office hours; contributing to a 98% pass rate.

Pixel Light Digital Media — Lyndhurst, NJ
Software Testing & Quality Assurance Analyst — *Jun. 2022 - August 2022*

- Designed and executed tests for a real-time AI computer vision system used to track foot traffic, dwell time, and interaction with convention booths: improving distance prediction accuracy by 400% while on the project.
- Enhanced 3D facial recognition distance prediction to an accuracy of 2 feet within a 50-foot range.
- Analyzed 51,000+ impressions during 3-day deployment, providing data-driven feedback to optimize booth engagement.

Projects

@predictMLB (Summer 2023): Independent project in which I developed and deployed an autonomous X (Twitter) bot that publishes same-day MLB game winner predictions using a deep learning model and runs on AWS Lightsail
Used: *Python, AWS, Git, LightGBM, MLB Stats-API, X (Twitter) API, Concurrent Programming, APScheduler*

- Developed OOP infrastructure to fetch and preprocess historical MLB data for training a LightGBM binary classifier.
- Trained model on 6,300 samples, achieving 66% accuracy on an 1,100 sample unseen test set.
- Developed Python script to run on AWS, generating game predictions daily and posting results via X (Twitter) API.

Coursework

Deep Learning, Computer Vision, NLP, Data Structures + Algs., Systems Programming, Operating Systems, Database Management, Software Development Process, Computer Architecture, Statistics, Linear Algebra

Skills and Technologies

Languages: Python, JavaScript, C/C++, SQL, Java, Bash, R
Technologies: Git, Azure, Linux, React, Node.js, PWAs, Asana, Latex

Extracurriculars

Alpha Sigma Phi Fraternity: Vice-President of the Alpha Tau chapter of the Alpha Sigma Phi national fraternity. Responsible for overseeing and coordinating all events, promoting effective communication, leading conflict resolution.