SATHWIK YARLAGADDA

MCS Student

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EDUCATION

Master of Computer Science

Rice University

📅 January 2024 - current

📍 Houston, TX

Bachelor's of Science in Computer Science with a Concentration in Data Science

University of North Carolina at Charlotte

📅 August 2021 - December 2023

📍 Charlotte, NC

🎓 4.0/4.0

Awards

- Chancellor's List, (5/5) Semesters
- CUhackit 2023 Most Creative Usage Award

SKILLS

- Python (FastAPI, Flask)
- Machine Learning (PyTorch and scikit-learn)
- AWS and Google Cloud
- JavaScript
- Java
- SQL (MySQL, PostgreSQL)
- HTML5/CSS
- Unix, Git

Certifications

- PCEP – Certified Entry-Level Python Programmer
- AWS Academy Graduate for Data Analytics Certification

Soft Skills

- Analytical and Critical Thinking
- Collaboration and Communication
- Attention to Detail
- Creativity
- Time-Management

WORK EXPERIENCE

Software Project Contributor

Patient Xpress

📅 May 2023 - August 2023   📍 Laguna Niguel, CA

- Collaborated with a small team of contributors to develop and implement a sentiment analysis solution for customer voicemails.
- Designed and developed Python scripts to preprocess and clean audio data, converting voicemails into suitable formats for analysis.
- Utilized natural language processing (NLP) techniques to extract relevant features from transcribed voicemails, enhancing the accuracy of sentiment predictions.

Undergraduate Teaching Assistant

University of North Carolina at Charlotte

📅 January 2023 - May 2023   📍 Charlotte, NC

- Evaluated student assignments, coding exercises, and projects, providing constructive feedback to promote learning and improvement.
- Assisted students in identifying and resolving Java coding errors, guiding them through the debugging process and promoting independent problem-solving.
- Conducted regular office hours where students could seek additional help, discuss concepts, and receive further explanation on course topics.

PROJECTS

Cryptocurrency Auto-Trading Platform | 🔗

Co-Creator

- Developed a FastAPI-driven API deployed on an EC2 instance, effectively generating automated trading notifications for users, executed through Robinhood integration.
- Developed a user-friendly client application enabling authentication, autotrading initiation, and trade tracking functionalities.
- Leveraged an RDS-hosted Postgresql database to store trading data and user data.

Learning Rate Scheduling Experiments | 🔗

Co-Author

- Explored novel learning rate solution for optimizing stochastic gradient descent, focusing on Chebyshev fractal learning rates, demonstrating significant improvements in convergence speeds.
- Conducted comprehensive experiments using Python, applying advanced learning rate strategies to benchmark datasets to showcase their potential in real-world scenarios by improving training stability and performance.
- Documented findings and methodologies in a detailed research paper, outlining the methodologies used, the experimental setup, and a discussion on the effectiveness of the proposed learning rate schedules compared to traditional methods.

Social Media Website with Content Moderation | 🔗

Creator

- Led the end-to-end development of the project, leveraging HTML, CSS, and JavaScript for front-end interfaces, and utilizing Python and Flask for the back-end server.
- Implemented YOLO's Tiny model for accurate chair detection in uploaded images, ensuring content moderation within the platform.
- Designed an interactive voting system that allows users to upvote and downvote posts and comments, providing flexible sorting options for enhanced engagement.