Hanuma Sashank Samudrala

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Education

University of Maryland, Baltimore County **Aug 2023 – May 2025**

Master of Science in Computer Science GPA: 3.867 / 4.0

- **Relevant Coursework:** Advanced Operating Systems, Principles of AI, Computer Vision, Design & Analysis of Algorithms, Introduction to NLP, Interactive Fiction & Text Generation, Introduction to ML

SASTRA UNIVERSITY **Aug 2017 – May 2021**

Bachelor of Technology in Computer Science Cum. GPA: 7.708/10

Technical Skills

Languages & Frameworks: C, C++, Python, Javascript, HTML, CSS, Python FastAPI, React.js, Node.js
AI/ML: TensorFlow, Keras, OpenCV, OpenAI GPT APIs, Prompt Engineering
Database: SQL, MySQL, MongoDB, PostgreSQL
Cloud Tecnologies & Tools: Microsoft Azure, AWS, Docker, Palantir Software, Git, Jira, VSCode

Work Experience

Full Stack Engineering Analyst |Accenture * Feb 2021 – Jul 2023

- Built data pipelines using Azure Data Factory (ADF) to automate data movement and transformation for a web application project, resulting in improved data processing efficiency and reduced manual intervention
- Designed and implemented backend APIs using Python FastAPI, enabling efficient functionality integration for a web application project, which enhanced user experience and lessened server response time
- Led the design of a "Supply Chain Network Digital Twin" dashboard using Palantir Software tools including Contour, Ontology Manager, Workshop & Code Workbook, improving supply chain visibility and resilience in a prototype project

Data Science Intern | InMovidu Tech May 2020 – Jul 2020

- In an initial learning internship, conducted EDA on datasets and trained models such as Logistic Regression, KNN. Attained 88% accuracy with Logistic Regression to determine the best model for the specific task based on performance comparisons.— CodeRepo *

Projects — *

Distributed File System (DFS) | *Python, Distributed Systems, Fault Tolerance, Docker, Unit Testing* **GitHub**

- Built a fault-tolerant DFS with modular client-server architecture, ensuring reliable file storage and retrieval, replication and automatic failover for high availability. Integrated dynamic server selection & load balancing to enhance resilience.
- Incorporated features like metadata management and FIFO-based locking mechanism for concurrency control. Optimized read/write operations & tested with 50 clients using docker, demonstrating improved scalability & decreased response time

Two-Stage Neural Network for Image Super-Resolution | *Python, Tensorflow, Opencv* **Github**

- Designed a 2-stage neural network using SRCNN SRGAN for Single Image Super-Resolution, achieving PSNR 33.06, SSIM 0.90 & MSE 96.39. Applied 9 fusion techniques, with Intensity Hue Saturation (IHS) fusion outperforming individual models, boosting PSNR by +0.08 & MSE by -2%. Leveraged complementary strengths of CNN-based and GAN-based models, optimizing fusion strategies to enhance fine details, contrast & sharpness for super-resolution tasks.

SentimentScope | *Python, transformers* **GitHub**

- Created an AI-driven web platform for sentiment analysis, leveraging fine-tuned NLP models (RoBERTa for tweets, DistilBERT for emotions and Amazon product reviews) achieving 92%, 88%, and 87% accuracies, respectively.
- Implemented multi-model strategy, selecting predictions from models with highest confidence scores to deliver accurate, domain-specific sentiment insights and reduce edge-case errors for real-time sentiment analysis of diverse text sources.

EpicTale: Adaptive Genre Gaming | *OpenAI GPT-4o LLM, ReactJS, NodeJS, CSS, HTML* **GitHub**

- Engineered a text-based interactive game powered by OpenAI's GPT models, enabling dynamic storytelling across genres like fantasy, sci-fi, and mystery, with genre-specific narratives and user-driven story progression via one-shot prompting.
- Created a React.js interface for smooth player interaction & Node.js backend for API calls and game logic, using prompt engineering to tailor AI-generated text to genre nuances for immersive gameplay.—GamePoster *

Additional Activities and Awards

Active Programmer — LeetCode, GeeksforGeeks solved 150+ problems on Data structures & Algorithms
Graduate Teaching Assistant — UMBC assisting students in Data structures and software engineering courses
Graduate Scholarship, UMBC awarded over $20k for exceptional academic performance in my first year of graduate studies.
Palantir Hackathon Winners, Accenture Secured second place among 100+ global teams for developing a forecasting dashboard using Palantir tools.