Rahul Chemitiganti

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Education

Johns Hopkins University Baltimore, MD, US

Master of Science in Engineering - Computer Science *SGPA: 3.67, Expected Dec 2025/ May 2026*

Technical Skills

Languages: C, C++, C#, CSS, HTML, Java, JavaScript, MQL, Python, SQL
Data Science and Analytics: NumPy, Pandas, Matplotlib, Seaborn, Power BI, Tableau, Jupyter Notebooks
Machine Learning and AI: TensorFlow, Keras, PyTorch, Scikit-learn, OpenCV, NLTK, Transformers (Hugging Face)
Areas: Artificial Intelligence, Deep Learning, Natural Language Processing, Software Development, Model Evaluation

Experience

Artificial Intelligence / Machine Learning Engineering Intern May 2025 – Jun 2025

SoKat *Baltimore, MD*

- Developed a hybrid metric combining TF-IDF, BoW, Word2Vec, and BERT to measure data enrichment scores
- Enriched sentences showed a 28% boost in metric scores and higher TTR, indicating greater lexical diversity
- Low-quality sentences showed 35% more divergence, validating the metric's ability to flag confusing generations

Data Analytics Intern Dec 2024 – May 2025

Johns Hopkins University *Baltimore, MD*

- Assisted by labeling 500+ outputs and annotating groundtruth data for testing at the CCVL research group

Graduate Course Assistant: Blockchains and Cryptocurrencies Sep 2024 – Dec 2024

Johns Hopkins University *Baltimore, MD*

- Created and executed test cases for autograding blockchain-related assignments on Gradescope
- Assisted in grading 50+ assignments and providing feedback on consensus mechanisms and smart contracts

Software Intern Nov 2023 – Jan 2024

Bosch *Bengaluru, India*

- Developed Simu Bridge, a simulation tool for Programmable Logic Controllers (PLCs) with Modbus server functionality using C# improving automation system testing efficiency by 30%
- Designed a user-friendly interface enabling configuration of 8+ Modbus tags, connection settings, and parallel simulation instances, streamlining workflows for automation engineers

Advanced App Engineering Analyst Jun 2023 – Jul 2023

Accenture *Bengaluru, India*

- Gained hands-on experience in Identity and Access Management (IAM) focusing on 3+ security protocols
- Analyzed 5+ IAM workflows to improve RBAC and compliance with organizational security standards

Projects

Optimising Container Consolidation for Efficient Resource Utilization Feb 2024 – May 2024

- Devised a custom Virtual Machine migration algorithm for energy-efficient container management
- Simulated real-world cloud workloads using CloudSim and the PlanetLab dataset, processing over 10,000 Virtual Machine migrations per threshold setting
- Benchmarked the proposed algorithm against Maximum-Correlation and Minimum Migration Time algorithms, showing a 20–30% reduction in Virtual Machine migrations and 10% fewer Service Level Agreement violations
- Optimized Virtual Machine migration using CPU and memory utilization parameters, reducing Virtual Machine shutdowns by 15%, improving cloud resource efficiency

Compiler Design for Recognizing Different Programming Languages Dec 2023 – Jan 2024

- Constructed a compiler for effectively identifying 4 different programming languages within a single input
- Implemented a lexer using the PLY library capable of recognizing 50+ tokens across Python, C++, C, and Java
- Supports over 10 language constructs including function definitions, variable declarations and control structures.

Accent Detection in Indian Languages through CNN based Spectrogram Analysis Feb 2023 – Jun 2023

- Trained a deep learning model using CNNs for Indian accent classification, achieving 82% accuracy
- Curated and processed a novel dataset of around 7,000 1-minute audio samples from YouTube
- Utilized MFCC preprocessing, extracting 13 coefficients per frame to enhance feature extraction.
- Applied LIME to interpret model predictions, identifying top 10% most influential spectrogram regions impacting classification