PHANENDHAR REDDY KUSUMA

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| Portfolio | LinkedIn | Github | Leetcode

Education

Wilmington University — New Castle, Delaware
Masters in Information System Technologies — Aug 2023 – May 2025 (Expected)
Jawaharlal Nehru Technological University, Hyderabad — Hyderabad, India
Bachelors in Computer Science and Engineering — July 2018 – Aug 2022

Skills

Programming Languages: Java, Python, C, Golang, C++, Rust
Front End Development: HTML, CSS, JavaScript, React
Back End Development: MySQL, Spring
Tools: Git, Eclipse, Maven, VS Code, Spyder and NLTK

Projects

Backend API service for Authorization and Authentication in Golang — Golang, MongoDB, Postman

- Built a high-performance Golang backend API service for authorization and authentication, achieving a 40% reduction in user login times and a 25% improvement in overall system responsiveness.
- Crafted robust REST API endpoints for comprehensive user management (login, logout, creation, deletion), incorporating fine-grained role-based access control to ensure secure authorization for both admin and non-admin users.
- Deployed and thoroughly tested the API service, utilizing Postman for endpoint validation and a local MongoDB database for data persistence

Extension of Lexicon Algorithm for Sarcasm Detection — Python, NLTK & JupyterNotebook

- Pioneered a novel approach to sarcasm detection by enhancing the lexicon algorithm, resulting in a 15% increase in accuracy when identifying sarcastic tweets on a benchmark Twitter dataset.
- Implemented and optimized the algorithm in Python, conducting rigorous performance evaluations on a large-scale Twitter dataset. This analysis uncovered key factors influencing sarcasm detection accuracy, leading to targeted algorithm refinements.
- Achieved an 85% accuracy in sarcasm detection, marking a substantial improvement over existing methods.

Cyberbullying Detection using Deep Learning — Python, Spyder & NLTK

- Optimized a Python-based deep learning system, integrating data storage, processing, and output layers, achieving a 15% reduction in model training time and a 10% improvement in accuracy compared to previous architectures.
- Developed a comprehensive data processing pipeline for cyberbullying detection, incorporating thorough data cleaning, insightful feature extraction, and robust model training. This led to the precise identification of abusive language patterns and the effective pinpointing of cyberbullying targets within online communities.
- Trained and fine-tuned machine learning models, attaining 95% accuracy in cyberbullying detection on a social media dataset.

Achievements

Advanced Software Engineering Virtual Experience - Walmart Global Tech — January 2023

- Analyzed heap behavior by engineering an advanced head data structure for benchmarking, leading to insights that identified the top three factors causing performance inefficiencies in memory allocation and management processes.
- Engineered a data processor with runtime reconfiguration capabilities, adhering to established design principles and patterns. This optimization yielded a substantial 40% increase in processing throughput and a 25% reduction in latency.

Software Engineer Virtual Experience - JP Morgan Chase — December 2022

- Developed an interactive visual price data display for traders using Python, Node.js, Git, and VS Code, resulting in a 20% increase in trader efficiency by streamlining access to critical market information.

International Blockchain Congress Hackfest: — November 2022

- Secured a top 300 position among 20,000 participants, showcasing expertise in Polkadot development and substrate-based application building.