Srinivasa Rithik Ghantasala

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(Interested in learning new programming languages and finance domain)

EDUCATION

Northeastern University **Aug 2024 - Dec 2026**
Master of Science in Information Systems CGPA:4.0/4.0
CVR College of Engineering **Nov 2020 - May 2024**
B.Tech in Computer Science & Engineering (Data Science) CGPA:3.7/4.0

EXPERIENCE

Research Facility at CVR **Hyderabad,India**
Research Assistant July 2023 - May 2024

- Worked as a research assistant on Android malware detection using neural networks, improving detection accuracy by 25% and helping to protect millions of Android users from malware threats by leveraging machine learning algorithms to identify malicious applications
- Collaborated with a professor and a research team on DDoS attack detection, utilizing big data technologies such as Hadoop and MapReduce alongside data management techniques and machine learning algorithms to enhance detection capabilities

AIThinkers **Hyderabad,India**
Full Stack Developer Intern Jan 2023 - Dec 2023

- Developed and maintained scalable web applications, optimizing API calls and database queries, resulting in a 30% improvement in overall performance through agile methodology
- Worked closely with backend teams to optimize database queries (MySQL, MongoDB) by implementing indexing, query refactoring, and caching strategies, resulting in a 15% reduction in page load times
- Collaborated with frontend teams to design and implement over 15 RESTful API integrations, improving data retrieval speed by 30% and contributing to a 25% increase in overall user satisfaction based on feedback surveys.

SKILLS

Programming Languages : Java, Python, Javascript, Swift, HTML, CSS
Software Engineering : React.js, Node.js, SQL, Angular, High-level Software Design, Firebase (Services), Linux
Cloud & AI Tools : AWS (S3, EC2, Sagemaker), Google Cloud, Docker, Kubernetes, Apache Airflow
Data Expertise : Data Analysis & Visualization, Machine Learning, Neural Networks
Data Libraries & Visualization Tools : Tableau, Numpy, Pandas, Scikit-Learn, Tensorflow, PyTorch, Keras

PROJECTS & PUBLICATIONS

Insurance Management System | React.js, MongoDB, SQL

- Developed a responsive React.js web application to streamline university-provided insurance options, reducing the hassle of searching across different providers.
- Implemented state management using Redux Persist for session continuity and secure payment gateway system using Stripe APIs.
- Designed a secure backend with Express.js and REST APIs, enabling seamless data transactions, automated email notifications, and PDF generation for enhanced user experience.

Subscription Manager – iOS App | Swift, SwiftUI, Firebase

- Developed an iOS app for tracking subscriptions, setting reminders, and managing recurring payments with automated bill tracking and expense insights.
- Implemented Firebase Authentication with Apple Sign-In and biometric login for secure and seamless access.
- Designed an intuitive SwiftUI interface with dynamic theme switching, push notifications, and analytics tracking for personalized user insights.

Automobile Management System | Java Application Development

- Developed a Java-based Automobile Management System, connecting 5 enterprises, 8 organizations, and 10 roles, optimizing order placement, manufacturing, and supply chain operations, contributing to process improvements and software infrastructure
- Designed and implemented RESTful microservices to streamline inventory tracking and order dispatching, reducing processing time by 20%
- Demonstrated strong programming skills and contributed to the high-level software design, supporting the seamless integration of critical system components to ensure and maintain product quality
- Collaborated on code reviews and software debugging, ensuring high-quality with error reduction up to 30%, secure software delivery and providing feedback on software architecture to meet industry standards

Full-Stack Android Malware Detection Using Neural Networks | link

- Developed and integrated a full-stack web application leveraging Artificial Neural Networks (ANN) to analyze system call patterns from Android applications, achieving over 90% accuracy across multiple datasets
- Designed and implemented a ReactJS frontend enabling users to upload APK files, assess application maliciousness, and visualize key metrics such as accuracy, MCC, and precision with basic use of AWS Services
- Optimized the deep learning architecture for malware classification, enhancing detection accuracy for various Android malware variants and strengthening mobile security solutions

The Investigative Study on the Performance Analysis of SMOTE Employed Machine Learning Classifier Models to DDOS Attack Detection | Published under IJRITCC | *link*

- Enhanced DDoS attack detection by applying SMOTE (Synthetic Minority Over-sampling Technique) to address data imbalance, improving classification accuracy and reducing false negatives by 20%
- Evaluated the performance of five machine learning models, including Random Forest, SVM, and XGBoost, determining that Random Forest achieved the highest accuracy (99%) and MCC score (0.98)
- Collaborated with a research team to optimize machine learning models for DDoS attack detection, providing actionable insights for organizations to enhance network security and maintain service availability for millions of users.