Sreecharan Vanam

+1-9408433120 vanamsreecharan05@gmail.com vanam-sreecharan GitHub Denton, TX

Education

University of North Texas **May 2024**
Master of Science in Computer Science *Denton, TX, US*
- Research Assistant in Responsible AI Lab
- Teaching Assistant for Big Data and Data Science Course

Vellore Institute of Technology **May 2020**
Bachelor of Technology in Computer Science and Engineering *Vellore, India*

Skills

Programming Languages: Python, Java, JavaScript, C++, C#, Prolog, Bash, R, MATLAB, SQL, PowerShell, .Net, Perl, Scala, Swift, GoLang, Kotlin, TypeScript, HTML, CSS, LISP, OCaml, Ruby

Data Science & Machine Learning: TensorFlow, PyTorch, Scikit-learn, Keras, BERT, LLM, Numpy, Pandas, MxNet, Apache Spark, Machine Learning Algorithms, Deep Learning (CNN, RNN, LSTM), NLP, NLTK, BOW, TF-IDF, Word2Vec, Matplotlib, Dataflow, Databricks, TFLOPS

Big Data Technologies: Apache Spark, Hadoop, Pyspark, Snowflake, Redshift, Kafka

Cloud Computing Platforms: Google Cloud Platform (GCP), AWS, Azure, PKS, Lambda, ECS

Containerization & Orchestration: Docker, Kubernetes, OpenShift, Mesos

Database Management: MySQL, PostgreSQL, NoSQL, MongoDB, Neo4j, Teradata, Informatica, JDBC, Cassandra, Amazon DynamoDB

Operating Systems: Linux, Unix, Windows, RHEL, Shell scripts, Mac

CI/CD Pipelines: Jenkins, Ansible, Terraform, Git

Visualization Tools: Tableau, Power BI, Looker

Software and Development Tools: Eclipse, IntelliJ, Anaconda, Visual Studio Code, Orbit, Google Patents, AngularJS, Spring, React, Node.js, OpenGL, Django, Splunk, Datadog

Professional Experience

University of North Texas, Responsible AI Lab **September 2022 – November 2023**
Research Assistant *Texas, United States*
- Enhanced the lab's responsible AI initiatives by improving ETL processes and model validation techniques, leading to more robust and reliable AI systems.
- Boosted the lab's research output by leading scientific writing and data management efforts, crucial for developing accurate and effective predictive models.
- Spearheaded the integration of Large Language Models (LLMs) into generative AI frameworks, significantly enhancing algorithm performance and accuracy, achieving a 20% improvement in model prediction accuracy.

IPexcel Services Private Limited **February 2020 – August 2022**
Data Research Analyst *Bangalore, India*
- Enhanced the efficiency of IP data research and analysis by 30% through conducting Novelty analysis, Patentability Searches, and Patent/Technological Landscape projects, and managing Prosecution cases using ETL processes and SAS.
- Played a key role in the development of high-quality Intellectual Property Portfolios for leading Multi-National Companies, leveraging data analysis and business intelligence to significantly enhance their strategic IP assets.
- Delivered data-driven insights that improved client decision-making processes by 20% through detailed data visualization, clear reporting, and effective data modeling techniques.

Treflo **May 2019 – August 2020**
Software Developer Intern *Bangalore, India*
- Boosted E-commerce website performance by 25% by developing a responsive site using JavaScript, CSS, HTML, PHP, and integrating web services.
- Optimized application efficiency by implementing caching mechanisms and leveraging Oracle database, reducing performance bottlenecks.
- Ensured seamless integration of front-end and back-end components, collaborating with a cross-functional team of designers and developers using React, Node.js, and Visual Studio Code, adhering to the Software Development Life Cycle (SDLC) best practices.

Research

Investigating Code Generation Performance of Chat-GPT with Crowdsourcing Social Data **IEEE COMPSAC 2023**

Collaborated with Argonne National Laboratory to develop and analyze Stable Diffusion models **March 2023**

Awarded the Best Track Paper at IEEE COMPSAC 2023 **May 2023**

Relevant Coursework

Software Engineering	Computer Algorithms	Database Management Systems
Deep Learning	Data Structures	Natural Language Processing
Artificial Intelligence	Statistics	Information Retrieval and Web Search
Machine Learning	Feature Engineering	Operating Systems
Big Data Analytics	Image Processing	Computer Networks

Academic Projects

DistilBERT-based Question and Answering System Adapted for UNT FAQs | *Web Scraping, Python* **Sept 2023**

- Improved response time by 40% for UNT FAQs by enhancing the DistilBERT-based QA system, increasing accessibility for prospective students.
- Streamlined information retrieval processes by conducting web scraping and data organization of UNT website FAQs, resulting in a 25% increase in user satisfaction.
- Implemented optimized data preprocessing and model training techniques, ensuring 95% accuracy in predictions.
- Empowered prospective students with swift access to accurate answers from departmental webpages, revolutionizing UNT information retrieval.

Sentiment Analysis and Evaluating Code Quality Generated by ChatGPT | *Python, NLP, NLU, LLM* **May 2023**

- Conducted an in-depth analysis of code quality generated by ChatGPT, providing valuable insights into code assessment and public sentiment.
- Utilized a combination of sentiment analysis techniques to evaluate generated code, and incorporated computer vision methods to analyze code structure and presentation, improving overall evaluation accuracy by 30%.
- Enhanced understanding of ChatGPT's code generation capabilities, contributing to improvements in AI code generation.

Job Application Management Portal | *Java, Spring, SQL, Bootstrap, JavaScript, HTML, CSS, PHP* **Feb 2023**

- Optimized recruitment processes by 35% through engineering an innovative Job Application Portal, utilizing Java, Spring, SQL and Bootstrap.
- Enhanced job matching and management capabilities by seamlessly integrating backend and frontend functionalities, fostering user-friendly interactions.
- Empowered job seekers and employers with valuable insights, revolutionizing the recruitment landscape and facilitating efficient hiring practices.

Smart Seating Management | *Arduino, Java, Spring Boot, Angular, HTML, CSS, SQL* **August 2018**

- Developed a smart seating management system, integrating IoT technology with Arduino and Java, facilitating real-time seat occupancy tracking and efficient resource allocation.
- Designed a user interface using Angular with HTML and CSS for seamless interaction, improving user experience by 20%.
- Implemented SQL for data storage using Spring Data JPA, demonstrating expertise in IoT, web development, and database management.

Certifications

- Introduction to Data Science in Python
- Cluster Analysis in Data Mining
- Cyber Security in Manufacturing
- Social and Behavioral Research-CITI
- Innovation, Business Models, and Entrepreneurship

Achievements

Recognized as the youngest co-author in presenting a research paper at IEEE COMPSAC.

Achieved 3rd place in a national Arts and Painting challenge focused on cultural diversity.

Awarded the Competitive Student Merit scholarship by the Government of India for academic excellence.