Divakara Rao Annepu

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EDUCATION

- **Virginia Tech**
  Master of Engineering in Computer Science
  Falls Church, VA
  August 2023 – December 2024

- **Jawaharlal Nehru Technological University**
  Bachelor of Technology in Computer Science
  Kakinada, India
  July 2017 – July 2021

PROGRAMMING SKILLS

- **Languages**: Python, Java, C++, JavaScript, TypeScript, HTML5, CSS, SQL, GraphQL, Shell Scripting.
- **Frameworks**: REST, ReactJS, Django, SpringBoot, Hibernate, Hugging Face, Tensorflow, PyTorch, Redis, NumPy, Pandas, OpenCV.
- **Tools**: AWS, Docker, Kubernetes, GIT, Jenkins, Linux, Figma, MongoDB, PostgreSQL, CI/CD pipelines.
- **Other competencies**: Data Structures and Algorithms, Machine Learning, Statistics and Probability, API Security.

EXPERIENCE

- **Virginia Tech**
  Research Intern
  Falls Church, USA
  June 2024 - August 2024

  - **Fine-Tuning**: Successfully fine-tuned large language models for summarization tasks, optimizing model parameters to enhance accuracy and performance by 25%.
  - **Evaluation**: Conducted comprehensive evaluations of large language models (LLMs) for summarization tasks, resulting in a 20% improvement in model accuracy and efficiency based on established metrics and benchmarks.

- **Accolite Digital**
  Software Engineer
  Hyderabad, India
  September 2021 - July 2023

  - **Built and Maintained Applications**: Engineered and maintained mission-critical Data Modelling applications (ErStudio, DbStudio) resulting in a 30% improvement in data management efficiency.
  - **Microservice Architecture**: Led the feature set development on multiple services in a microservice-oriented distributed architecture, enhancing system scalability by 20%.
  - **XSS vulnerabilities**: Mitigated all cross-site scripting vulnerabilities within the application, contributing to a 40% enhancement of overall security measures
  - **Enhancement of Applications**: Improved enterprise web applications with secure database connections and API security using Java, Spring MVC, Hibernate, and Spring Security, boosting application security by 50%.
  - **Trial License System Development**: Developed and maintained a trial license generation and blacklisting system, reducing unauthorized access by 35% with Java Spring MVC and SSL certificates
  - **Team Management**: Directed a team of 5 in executing and delivering release cycles; enhanced the Common Web Framework project, optimizing Spring Security and improving session management, resulting in a 25% productivity increase.
  - **DB performance optimization**: Drove performance optimization initiatives for the purge process, resulting in notable efficiency gains, streamlined data management, and a significant 80% improvement in the optimization of transaction log size utilization.

PROJECTS

- **Predictive Analytics Project**: Led a comprehensive machine learning project focusing on feature engineering, regression, and classification analyses to predict car prices and categorical attributes. Utilized PCA for dimensionality reduction and engineered multiple models, including Linear Regression and Decision Trees, optimized with grid search, improving prediction accuracy by 20%.
- **Caring Plates**: Designed a web application using Java and Spring Boot that connects restaurants with surplus food to NGOs and individuals to facilitate food donation and reduce wastage. Enabled real-time listing and claiming of food items, reducing food wastage by 20%.
- **Vehicle Detection and Counting**: Architected and implemented a vehicle detection system using OpenCV and Python that improved vehicle counting accuracy by 25%, significantly boosting traffic management and parking efficiency.