Srinivas Pavan

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Education

Masters in Computer Science Aug 2022 - May 2024
University of Florida GPA: 3.96/4

B.E in Computer Science & Engineering Aug 2017 - Jul 2021
Chaitanya Bharathi Institute of Technology Hyderabad GPA: 8.94/10

Skills

Languages: C++, C#, Java, JavaScript, Python, SQL, NoSQL (Proficient in object-oriented programming and data structures)
Development and Frameworks: ReactJS/Native, NodeJS, Django, Flask, .Net, .Net Core, Spring Boot, Postman, MongoDB
Data Science and DevOps: Pandas, TensorFlow, NLP, Docker, AWS, Kubernetes, Pytorch
Other Skills: Data Structures, Algorithms, Postman, CI/CD, Agile Development, Git, Linux, Solidity, Git (Open Source Contributor), SDLC

Experience

Graduate Student Research Assistant (Data Science & Full Stack Development) Jan 2023 to Present
University of Florida

- Spearheaded the upgrade of an EJS legacy website to a React interface with 5 modular components, enhancing operational efficiency through improved content update mechanisms and backend integration. Utilized Next.js and Tailwind CSS for front-end optimization, doubling 2x update speeds and enhancing React integration through agile feature deployment.
- Conducted comprehensive data analysis and machine learning studies on Florida's housing market using Python, Pandas, and TensorFlow to uncover trends in affordability and stability. Developed advanced data engineering methods for an optimized data pipeline, facilitating effective dataset management.
- Enhanced research impact through advanced data visualization techniques using Matplotlib and Seaborn. Collaborated on interdisciplinary projects, integrating Full Stack development with data science for innovative solutions in housing research.

Software Developer Jul 2021 to Jul 2022
Hexagon Pvt Ltd

- Enhanced technical drawing and 3D modeling software using C#, C++, and .NET, leading to increased efficiency and modernizing user interface for improved interaction
- Collaboratively facilitated the migration of technical applications to the cloud, focusing on the development of robust APIs using .NET Core, C#, and Node.js, thereby enhancing accessibility and optimizing performance.
- Developed and deployed cloud networking solutions, focusing on automation and integration with AWS and Azure, to enhance scalability and security for SaaS applications.
- Diagnosed, debugged & rectified bugs within the older software, thereby diminishing recurrent user-reported software issues by a notable 40%

Full Stack Developer Intern May 2020 to Jul 2020
Divideite

- Crafted a responsive educational platform's front-end using React.js and formulated a robust REST API with Node.js & MongoDB, ensuring seamless user interactions and data management.
- Enhanced problem classification accuracy by designing a deep learning model to interpret and categorize mathematical questions with 88% precision, integrating textual and numerical input analysis to provide detailed, step-by-step solutions for users.

Projects

AI Chatbot for Resume Tailoring and Career Guidance

- Devised an advanced AI chatbot using LLMA-2 LLM model and TensorRT LLM engine in Python, tailored to assist users in resume optimization and career advice. Used Langchain, Pinecone and streamlit. Optimized the LLM model performance using NVIDIA TensorRT-LLM
- Created a ChatGPT-like web interface using ReactJS for interaction, integrating user feedback for continuous improvement of chatbot responses and functionalities.

Human Face Image Generation from Textual Descriptions

- Designed & developed a variant of the Generative Adversarial Network (GAN), specifically the Text-Guided Diverse Face Image Generation (Tedi-GAN), which was fine-tuned utilizing Tensorflow & Pytorch by 68%
- Engineered an intuitive website where users can input a person's description & subsequently generate a high-definition facial image of the described individual. Coordinated with 2 developers & built website's front-end architecture using React

Listify - Time & Productivity Management Chrome Web Application

- Built a task-management Chrome Extension tailored for professionals & students, employing jQuery & React, & launched on the Chrome Web Store
- The application empowers users with 6 features like addition/deletion tasks to a calendar, enabling users to stipulate preferred notifications, including date, time, & any pertinent URLs for user reminders

Distinguish Hate Speech from Sarcasm

- Conceived a discrimination model employing BERT & TF-IDF to distinguish between sarcasm & hate speech prevalent in social media, accomplishing an impressive 80% accuracy upon analysis. Utilized PowerBI for data visualization, identifying critical linguistic patterns to boost predictive accuracy in machine learning models. Used Python, Pandas, NumPy and TensorFlow
- Generated & assessed 100 MB data by employing 4+ classification algorithms including Bag of Words, TF-IDF, BERT, & ERNIE models. Exhibited & promulgated the research paper at the esteemed **IEEE ICONAT 2022** event

Certifications & Publications

- **(Certification) AWS Certified Solutions Architect – Associate (Nov 2023):** Validated skills in architecting and deploying secure, robust applications on AWS technologies.

- **(Certification) Fundamentals of Accelerated Computing with CUDA C/C++:** Enhancing my skills in GPU-accelerated application development.
- **(Published IEEE PAPER) Distinguish Hate Speech from Sarcasm** a discrimination model employing BERT & TF-IDF to distinguish between sarcasm & hate speech prevalent in social media, published the research paper at the esteemed **IEEE ICONAT 2022**