Jayanth Vunnam

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Education

University of Colorado, Boulder 08/2024 – Present
Master of Science in Computer Science, GPA: 3.5/4.0 Colorado, United States

Chaitanya Bharathi Institute of Technology 08/2018 – 06/2022
Bachelor of Engineering in Computer Science and Engineering, GPA: 3.38/4.0 Hyderabad, India

Skills

Programming Languages: C, Python, JavaScript, TypeScript, HTML, CSS, SQL, C++.

Technologies: Node.js, Express.js, Amazon AWS, React, Postman, Splunk, New Relic, Jest, CI/CD, Jenkins, Linux, REST API, Git, GitHub, JIRA, Confluence, BitBucket, TensorFlow, Keras, PyTorch, Scikit-Learn, OpenCV, NumPy, Pandas.

Work Experience

Advance Auto Parts 08/2022 – 07/2024
Associate Software Developer Hyderabad, India

- Contributed to the development of an e-commerce website and mobile app back-end by implementing new APIs to enhance functionality and user experience using **Node.js, Express.js, TypeScript, JavaScript, and AWS**.
- Played a key role in website maintenance by troubleshooting issues using Splunk, New Relic and collaborating with cross-functional teams in an Agile environment to deliver performance enhancements, resulting in 30% faster response time.
- Improved codebase robustness by 20% through Test-Driven Development (TDD) by implementing end-to-end test cases using **Jest**.

GE Appliances 01/2022 – 07/2022
Digital Technology Intern Hyderabad, India

- Enhanced Brilliant Factory Application, which tracks manufacturing plant operations, detects issues in real time, and monitors employees.
- Implemented new features using HTML, CSS, and JavaScript and fixed bugs to reduce data latency to **2s** from **5-7s** and ensure accurate data by fetching from the back-end database.
- Conducted an in-depth analysis of 5+ RPA tools, finalized with **UI Path** and developed an application to automate the testing process for Brilliant Factory suite using **UI Path**, reducing manual testing time by **30%**.

Accomplishments

- Recognized with the 'Silver Medal' for Academic Excellence at CBIT Institute Day, 2018.

Projects

Lip to Speech Synthesis

- Developed a deep learning model leveraging **CNN, AlexNet, and LSTM** to generate speech and text from video by training on 1,500 video clips.
- Converted the video into multiple frames, each resized to 227x227x3 and fed them into convolution layers, as smaller images may lose potential details of lip movement and have fewer parameters.
- Improved model accuracy to 75% by training on diverse datasets to ensure reliability and robustness, validating on muted or disturbed videos.

Pneumonia Prediction using X-rays

- Designed a diagnostic deep learning model from scratch on a vast medical dataset of around 8000 images and utilized pre-existing models such as **VGG19 and ResNet-50**.
- The model predicted pneumonia from X-rays with an accuracy of 95%, allowing for accurate predictions.

Covid-19 New Case Prediction and Recovery Rate across the World and India

- Built a predictive model for daily forecasting of COVID-19 cases, recovery, and deaths worldwide and at the state level in India using models such as polynomial regression and SVM and achieving 98% accuracy.
- Integrated real-time data retrieval from the Johns Hopkins website through API to ensure real-time predictions, improving forecasting accuracy by 25%.