Jaya Shree Mallipudi

Portfolio: https://mallipudijaya.github.io/
Medium:https://medium.com/jaya
Seeking Full-Time Software Engineer

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EDUCATION

- **Texas A&M University** — College Station, TX
  Master of Computer Science; GPA: 3.83/4.0 — *Aug 2022 - May 2024*
  Coursework: Deep Learning, Parallel Computing, Analysis of Algorithms, Distributed Systems and Cloud Computing, Data Mining

- **National Institute of Technology** — Andhra Pradesh, India
  Bachelor of Technology in Computer Science and Engineering; CGPA: 8.45/10.0 — *Jul 2016 - May 2020*

TECHNICAL SKILLS

- **Languages**: Java, Python, C++, C#,Swift, SQL, GO, R, JavaScript,ReactJS,Typescript, HTML/CSS, PHP,NodeJS
- **Frameworks/Lib**: Flask,Ruby on Rails,Jest,Enzyme, REST API, Spark, TensorFlow, Pandas, Numpy,gRPC
- **Tools & Software**: AWS, Kubernetes, Git, Jenkins, Selenium,Docker,Redux,POSTMAN
- **Databases**: MySQL, PostgreSQL, MongoDB
- **Certifications**: Nvidia Deep Learning, Learning AWS

WORK EXPERIENCE

Graduate Assistant, Texas A&M University - College Station, TX — *Jan 2023 - May 2024*
- Implemented a web-based portal using the OpenOnDemand framework at Texas A&M University's High Performance Research Computing (HPRC) facility. The portal provides researchers with a centralized interface to monitor billing accounts, file quotas, job statuses, and job details.
- **Job Listing**: Designed a job listing dashboard to analyze job metrics,Enhanced query API to collect query statistics, providing insights into metrics like I/O, processing times, and cluster availability improving query performance by 30%. **Technologies Used:**Ruby on Rails,React,Flask,Python,Docker,Kubernates
- Converted the codebase from Ruby on Rails to React and Flask, enhancing performance and scalability by 20%.
- Ensured the web portal adhered to accessibility standards by implementing responsive design and supporting screen readers.
- **Computer Systems Grader**: Crafted assignments centered around creating a operating systems and networks **Technologies Used:** C++, Google cloud, Virtual VMs,Linux

Software Engineer, Tata Consultancy Services - Hyderabad, India — *Oct 2020 - July 2022*
- Designed and implemented **React [JavaScript&TypeScript]**application for displaying financial data with a mobile-first UI Designed and implemented non-blocking **asynchronous querying** Restful APIs reducing server response time by 20%.
- Developed and optimized SQL queries within Node.js backend, improving database interaction efficiency and reducing query execution time by 15%.
- Recognized with **Persistence Award** for devising an automated process ensuring uninterrupted **ETL** operations and significant time savings for DevOps team.
- Implemented unit test integration using Jest, Enzyme,PyTest and Selenium to fortify application robustness, fully aligned with Agile practices leading to a **50%** reduction in bugs reported post-release.
- Created feedback mechanism via outlook extension project to categorize the emails using **NLP** & monitoring dashboards using **React**
- **Technologies Used**: python, Java, React, Node,AWS,Jest, Jenkins.

Machine learning Intern, Krify Technologies - AndhraPradesh, India — *May 2019 - Jul 2019*
- Designed and deployed a high-performance real-time processing accident detection system. [Link]

ACADEMIC PROJECTS

- **Image Classification**: Refactored a CIFAR-10 training script to utilize Distributed Data Parallel (DDP) across 4 GPUs, reducing training time by over 50% while achieving a validation accuracy of 75% within 300 seconds. Implemented multi-GPU training using PyTorch DDP, optimizing model performance and resource utilization. Achieved efficiency improvements through careful data loading and synchronization techniques.**Used:** Python, PyTorch, CUDA [Link]*(Feb - Mar 2024)*.
- **CIBot**: Developed a robust user support tool automating workflow management and ticketing systems. Enabled custom request creation, dynamic workflow definitions, and secure communication channels via websockets, integrating with Slack, Jira, and other web apps. **Tools employed:** Python, Slack API, Google API, MongoDB *(Jan - May 2023)*.
- **Virtual Assistant**: Developed a Virtual Assistant integrating Riva Speech AI and Question Answering capabilities. Implemented ASR for accurate transcription of "EMEA," customized TTS for natural speech responses, and deployed extractive QA using BERT for answering queries. *(Aug - Dec 2021)*.
- **BitBid**: Led agile development for the BitBid auction platform in Django as scrum master and developer, implementing all-pay auctions and secure Bitcoin transactions via the Coinbase API. Developed front-end components with HTML, CSS, and JavaScript. Deployed on Heroku with CI/CD using GitHub Actions and Docker. Designed a scalable architecture and introduced asynchronous auction settlement with cron jobs for optimal performance. **Tools Used:** Python, Django, HTML, CSS, JavaScript, Docker, Heroku, CI/CD *(Aug - Dec 2022)*.