Sai Vamsi Dutt Patibandla

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Educations

Master of Science in Software Engineering, G.P.A: 3.7/4.0 *Aug 2022 – Present*
SAN JOSE STATE UNIVERSITY *San Jose, CA*
Relevant Course Work: Software Systems and Engineering, Network Programming and Applications, Cloud Computing.

Bachelor of Technology in Computer Science, G.P.A: 8.2/10.0 *Jun 2015 – May 2019*
V R SIDDHARTHA ENGINEERING COLLEGE *Vijayawada, India*

Skills

Programming languages:	Python, JavaScript, C++, Linux Shell Script, CSS, HTML, Java, C, SQL, Golang.
Databases and frameworks:	MySQL, MongoDB, Hadoop, Spark, Django, ReactJS, NodeJS, Pandas, TensorFlow, Keras, NLP, OpenCV, GIT, Ansible, Jenkins, Docker, Kubernetes, Terraform, AWS.
Additional skills and interests:	Statistics, Machine Learning, Deep Learning, Cloud Computing, Distributed Systems.
Soft Skills:	Problem-Solving, Communication, Flexibility, and Self-Management.

Experience

DevOps Engineer *Jul 2019 – Jul 2022*
TATA Consultancy Services – SAP *Hyderabad, India*

- Implemented infrastructure as code principles with Terraform, resulting in an 80% decrease in resource provisioning time and enhanced resource management within multi-cloud environments.
- Orchestrated containerization of applications using Docker, achieving a 40% reduction in deployment time, and ensuring consistent environments across development, testing, and production phases.
- Pioneered CI/CD pipelines for developer repositories, ushering in continuous deployment within internal environments while lightening the operational load by 20% for our development team.
- Streamlined seamless build and deployment with Jenkins, cutting manual work by 60% and provisioning time by 80%.
- Applied problem-solving skills to rectify recurring issues, delivering a substantial 90% reduction in daily provisioning failures.
- Leveraged Python and Shell scripts, alongside crafting Ansible playbooks, to automate critical processes such as installations, configuration file generation, backups, and routine tasks, collectively saving 15 hours of manual work each week.
- Generated automated web app performance and provisioning reports, saving 7+ hours of manual reporting time each week.
- Meticulously managed documentation for daily processes, providing comprehensive support for seamless operations.

Software intern *May 2018 – Aug 2018*
NRSC *Hyderabad, India*

- Enhanced satellite image quality by 50% through contrast-limited adaptive histogram equalization, improving the SNR.
- Achieved a remarkable error rate reduction to 0.15 in edge detection by deploying an innovative hybrid edge detector.
- Precisely generated shapefiles from segmented images, preserving vector information with zero data loss.

Projects

Airport Management System – ReactJS, NodeJS, Express, MySQL *Dec 2022*

- Engineered a versatile airport management system, enabling airline and airport personnel, as well as passengers, to seamlessly perform actions via Rest APIs, including gate management.
- Orchestrated the deployment of the system on AWS with load balancing, guaranteeing robust high availability, scalability.

Multi-client, Multi-room Chat Application – *Python, Socket Programming.* *Nov 2022*

- Developed chat rooms using socket programming, enabling real-time, multi-room conversations with efficient multiprocessing and multithreading.

Photorealistic image synthesis from text descriptions – *Python, TensorFlow* *May 2019*

- Curated and refined image-text dataset by crafting an algorithm to encode 8120 images and their descriptions into vectors, resulting in a significant one-day reduction in training time (300 epochs) utilizing cloud VM instances.

E-commerce website – Django, Elastic Search, Kibana *Apr 2018*

- Developed an intuitive E-commerce platform, enabling seamless images and data retrieval based on user search queries.

Database System Implementation – C++ *Nov 2017*

- Built a scalable single-user SQL database handling 1 million records efficiently for select, aggregate, and join operations.

Leadership and Achievements

- Placed as the runner-up among 40 teams in the Smart City Hackathon for developing real-time IoT solutions.
- Served as the Program Coordinator for a six-month period in an innovation and coding club with 320 students.