Sai Vamsi Dutt Patibandla

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EDUCATION

Master of Science in Software Engineering, G.P.A: 3.6/4.0 Aug 2022 – May 2024
SAN JOSE STATE UNIVERSITY, San Jose, CA
Relevant Coursework: Systems Software Engineering, Network Programming, Enterprise Software Technologies.

Bachelor of Technology in Computer Science, G.P.A: 8.2/10.0 Jun 2015 – May 2019
V R SIDDHARTHA ENGINEERING COLLEGE, Vijayawada, India
Relevant Coursework: Design and Analysis of Algorithms, Operating Systems, Software Development Life Cycle.

SKILLS

Programming languages: Python, JavaScript, Linux Shell Script, YAML, C++, Java, Kotlin, Go, HTML, CSS.
Databases and frameworks: MySQL, PostgreSQL, MSSQL Server, MongoDB, Kafka, RabbitMQ, React, Redis, Elasticsearch, GraphQL, Neo4j.
DevOps Tools: Git, Bitbucket, Maven, SonarQube, Nexus, Ansible, Jenkins, Docker, Kubernetes, Helm, Istio, Spinnaker, Terraform, CircleCI, ArgoCD, Prometheus, Grafana, Nagios, Dynatrace, ELK, Jira, ServiceNow, Azure DevOps, HashiCorp Vault.
Cloud Platforms and Tools: Azure (VMs, Azure Functions, AKS, Azure DevOps, Azure Logic Apps, Azure Monitor, Azure Blob Storage, Azure Active Directory, Azure Pipelines), AWS (EC2, S3, Lambda, API Gateway, CloudFront, CloudWatch, CodePipeline, CodeBuild), GCP.

EXPERIENCE

Software Engineer - DevOps Jan 2023 – Present
Telehelp Ukraine (Non-Profit Organization) – San Jose, CA — *React Native, Django, Docker, AWS*

- Spearheaded the development of a cross-platform mobile application for Telehelp Ukraine, improving healthcare access for thousands through scheduling on iOS and Android, leveraging AWS S3 for storage and CloudFront for delivery.
- Engineered robust, secure, and scalable API endpoints using AWS API Gateway and AWS Lambda, optimizing the performance, expecting a 30% increase in engagement and creating a user-friendly platform for critical healthcare support.
- Developed and managed CI/CD pipelines using AWS CodePipeline, AWS CodeBuild, Jenkins, and Docker, reducing build times by 40% and ensuring consistent and reliable deployments across multiple environments.
- Integrated AWS CloudWatch for comprehensive monitoring, along with Firebase Crashlytics and Grafana, reducing crash rates by 25% and significantly improving app reliability through proactive bug detection and resolution.

Site Reliability Engineer (SRE) Jun 2018 – Jul 2022
SAP Commissions — *Docker, Kubernetes, AWS EKS, Terraform, Prometheus, Grafana, AWS*

- Led the migration of the Commissions Linux application to a microservices architecture on AWS, utilizing Docker and Kubernetes with Kustomize, enhancing application performance and scalability by 40%.
- Developed, tested, and deployed an observability agent in Golang for the Commission's application on AWS EKS, seamlessly integrating AWS CloudWatch, Prometheus, and Grafana, improving system reliability and operational efficiency.
- Streamlined and optimized Infrastructure as Code (IaC) practices using Terraform, creating reusable modules that standardized resource provisioning and reduced provisioning time by 80%.
- Automated builds and deployments using GitHub Actions, effectively cutting deployment time by 34%.
- Managed secret storage and access control with HashiCorp Vault, reducing security-related incidents by 30%.
- Applied advanced troubleshooting techniques with AWS CloudWatch Logs, Prometheus, and OpenTelemetry to identify and resolve issues, achieving a 90% reduction in daily provisioning failures.
- Automated critical processes including backups, installations, configurations, and routine tasks using Python, Bash, Unix, PowerShell scripts, and Ansible playbooks, saving 15 hours of manual work weekly.

SAP Configure Price Quote (CPQ) — *Docker, Terraform, Azure, Azure AKS*

- Integrated Azure Monitor with Application Insights for comprehensive monitoring of the CPQ application, improving operational visibility and reducing incident response times.
- Implemented Kubernetes-based container orchestration with Azure AKS, optimizing pod scheduling and node utilization, reducing deployment time by 50% and increasing resource efficiency by 20%.
- Implemented robust CI/CD pipelines with Azure Pipelines and GitHub Actions, enabling continuous deployment for .NET applications and significantly reducing operational complexities.
- Managed secret storage and access with Azure Key Vault, securing data and reducing incidents by 30%.
- Developed an automated reporting system using Azure Functions and Azure Blob Storage, reclaiming over 7 hours weekly from manual tasks and unlocking strategic growth opportunities.

Software Engineer Intern Jan 2018 – May 2018
National Remote Sensing Centre — *Flask, OpenCV, Image Processing, GDAL*

- Enhanced satellite image quality by 50% through contrast-limited adaptive histogram equalization, achieving a remarkable error rate reduction to 0.15 in edge detection.
- Generated shapefiles precisely from segmented images, preserving vector information with zero data loss.

PROJECTS

Airport Management System — *React.js, Node.js, AWS EC2, AWS RDS, AWS ELB* Dec 2023

– Crafted a seamless airport management system using MVC and Factory design patterns for robustness and scalability. Deployed on AWS with Singleton pattern and load balancing for high availability.

Realtime Chat Application — *Python, Websockets, DNS, SSL, MySQL* Jun 2023

– Developed a real-time chat application enabling multiroom conversations with efficient multiprocessing and multithreading.

Shopify App Starter Kit — *Ruby on Rails, Postgres, Heroku* Feb 2023

– Crafted a starter kit that ensures efficient app performance and a seamless user experience, enabling the creation of high-quality Shopify apps utilizing Sidekiq for background jobs and Redis for caching.

TalkTutor — *React Native, Django, NLP, SQL, Google Cloud Platform* Oct 2022

– Created an AI-powered speech and presentation assistance app, enabling users to generate topic-based content, input, and correct text, manage user profiles, save content, provide feedback, and share information seamlessly.

Photo-Realistic Image Synthesis from Text Descriptions — *Python, TensorFlow* May 2019

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

LEADERSHIP AND ACHIEVEMENTS

– Second runners-up at CruzHacks 2022 for creating a skill-based career matching algorithm and webpage for students to search for internships, apprenticeships, and boot camps.

– Awarded Employee of the Year for 2 consecutive years at TCS.

– Placed as the runner-up among 200 teams in the Smart City Hackathon for developing real-time IoT solutions.

– Served as the president of the innovation and coding club with 320 students.

– Codeathon Winner at Jawaharlal Nehru Technological University, 2016.