

Manikant Thakur

DATA/ML/MLOPS PRACTITIONER · SR. DEVOPS · CLOUD ARCHITECT · INFOSEC

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Summary

Dynamic Cloud Engineer with over 14 years of experience pioneering scalable, secure, and efficient cloud infrastructure solutions. Recognized for delivering innovative strategies that directly impact business objectives, driving a 20% surge in operational efficiency and slashing infrastructure costs by 15%. Led projects spanning diverse scales, from small optimizations to enterprise-level implementations. Proficient across AWS, GCP, Azure, Docker, Kubernetes, Linux, and Server/Network administration, with a passion for automation. Skilled in leading cross-functional teams and collaborating with stakeholders to drive transformative change. Excited to integrate expertise in Data/ML/MLOps, leveraging hands-on experience to implement machine learning models and optimize data workflows. Eager to channel this proficiency into driving strategic initiatives, bolstering data-driven decision-making, and spearheading cutting-edge solutions.

Skills

DevOps	AWS, Azure, GCP, Docker, Kubernetes, Terraform, Jenkins, GitLab CI/CD, Helm, Istio
Programming	Python, Bash, PowerShell
InfoSec	Nessus, Burp Suite, OpenVAS, Wireshark, NMAP, Clair, kube-bench, CIS Benchmarks
ML	Pandas, NumPy, TensorFlow, PyTorch, Matplotlib, Seaborn
Full Stack	Elixir, FastAPI, PHP, Laravel, NodeJS, Express, Django, REST API, Next.js, React, Phoenix Framework & PostgreSQL

Work Experience

Slang Labs

Bengaluru, India

LEAD - DEVOPS, INFRA AND TOOLS

Oct. 2018 - Dec. 2022

- Optimized Docker build process, resulting in a 93% reduction in build time and a 76% reduction in image size, improving overall build efficiency.
- Enhanced CI/CD processes by transitioning from Jenkins to GitLab CI/CD, resulting in a 30% reduction in deployment time and a notable 25% boost in release frequency. This migration facilitated quicker and more frequent deployments, empowering teams to deliver updates and features with greater agility and efficiency.
- Implemented auto-deployment of commits to various tiers, except the production tier, resulting in a 90% reduction in manual intervention.
- Tweaked the CI/CD pipeline to avoid consuming CI/CD build minutes for repetitive commits and other parameters, saving 15% on cloud infrastructure costs.
- Achieved one-click production deployment, reducing release time by 50%-55%, resulting in a 75% faster production release.
- Set up and automated the release pipeline for Android/iOS/Web SDK release, improving release frequency by 25%.
- Established an on-call process, team, and infrastructure required (Prometheus, Grafana, Slack Alerts, System Status page), increasing the visibility of production tier's vital metrics and reducing downtime by 20%.
- Led the on-call team and acted as a subject matter expert on cloud providers, resulting in a 95% reduction in response time to incidents.
- Maintained 99.99% uptime for SlangInfra, improving system reliability by 20%.
- Implemented SAML and SSO on Slang CONVA with Auth0, improving the overall security of the platform by 25%.
- Migrated stateless microservices to Cloud Run, resulting in a 60% reduction in infrastructure costs.
- Conducted memory profiling of microservices for efficient resource allocation, reducing cloud infrastructure cost by 15%.
- Set up multi-Geo clusters for efficient traffic routing, improving overall system performance by 25%.
- Optimized log aggregation config to save cost by filtering out non-critical logs to be sent to Data Destination using Fluent, reducing cloud infrastructure cost by 20%.
- Worked with Terraform and Ansible for Infrastructure as Code (IaC), improving overall infrastructure reliability by 25%.
- Set up a multi-cloud setup between AWS and GCP, improving overall system reliability by 20%.
- Proficient in clean, maintainable, efficient PHP code with extensive OOP and design patterns experience.
- Skilled in designing and optimizing MySQL/MariaDB databases, database migrations, seeders, factories, indexing, and query optimization.
- Experienced in designing, building, and consuming RESTful APIs with authentication and authorization using OAuth and JWT.

xcelerator, HEd Experts

Bengaluru, India

SOFTWARE ENGINEERING LEAD | PRINCIPAL ENGINEER

Jan. 2017 - Sep. 2018

- Leveraged DevOps tools such as Docker, Kubernetes, Server-less Computing, ELK, AWS, and GCP to streamline infrastructure and improve operational efficiency.
- Built applications with ReactS, Phoenix Framework, Elixir, and PostgreSQL, delivering high-performance solutions for end-users.
- Containerized the entire tech stack and migrated to AWS, achieving improved scalability and flexibility while reducing infrastructure costs by 40%.
- Implemented CI/CD on Jenkins, enabling faster and more reliable releases with reduced manual intervention.
- Led two teams and ran parallel sprints to ensure effective planning, task allocation, and timely delivery of business requirements, resulting in a success rate of 80%-90%.
- Set up an authentication system based on Keycloak, an Open Source IAM, enhancing the security of the application.
- Implemented a local full-stack infrastructure, eliminating dependencies and improving developer productivity.

Thingbot Technologies

Bengaluru

May 2015 - Jan 2017

- **VP Software Engineering** (Feb. 2016 - Jan. 2017)
 - Led engineering teams in project planning and managed end-to-end cloud/IoT gateway infrastructure development.
 - Oversaw requirements gathering, design, coding, testing, early field trials, product deployment, and customer feedback to ensure successful project delivery.
- **Senior Software Developer** (May. 2015 - Jan. 2016)
 - Adopted and implemented Contiki OS (C), an event-driven TOS, on TI's cc2538 SoC (Cortex-M3) with expertise in real-time sensors/actuators and networks like 802.15.4, 6LoWPAN, RPL, COAP.
 - Led the architecture, design, and implementation of a distributed Cloud infrastructure hosted on AWS, resulting in a scalable and reliable system.
 - Designed and developed all micro services using Python 2.7, Elasticsearch 1.4, Django 1.9, and REST API.
 - Designed and developed an Ubuntu-based Gateway, serving as an interface to connect hardware and other components with cloud micro services, resulting in improved connectivity and functionality.

Paxterra Solutions Inc

Bengaluru

SOFTWARE ENGINEER (NETWORK PROTOCOL)

Jul. 2012 - Apr. 2015

- Implemented SDN technologies including OpenFlow, OF-Config, and OpenFlow Notifications Framework.
- Conducted protocol mutation and DoS attacks as part of network penetration testing using Perl and Python scripting.

Kochar Tech

Kolkata

Sep. 2009 - Jan. 2012

- **Network Engineer** (Jan. 2011 - Jan. 2012)
 - Configured and managed Cisco networking equipment such as switches, routers, and PIX firewall.
 - Conducted network cable management, performed log analysis, and troubleshooted network issues.
- **System Admin** (Sep. 2009 - Jan. 2011)
 - Expert in System Administration using Windows Command Prompt and Windows Powershell.
 - Achieved 99% success rate in automating OS updates for 500+ HP Mini PCs, completing the process under 3 hours, reducing manual effort significantly.

Kaizen TI Services Pvt. Ltd.,

Kolkata

L1 TECHNICAL SUPPORT ENGINEER

Nov. 2008 - Aug. 2009

- Achieved a resolution time of under 60 minutes for 90% of the tickets raised through effective incident management.
- Proficient in Microsoft Server 2003 and Altiris Deployment Server Administration, Windows Group Policy, and Windows Registry.

GitHub Projects

VersaVox

Ongoing Research and
Development

[HTTPS://GITHUB.COM/MANIKANTHAKUR/VERSAVOX](https://github.com/MANIKANTHAKUR/VERSAVOX)

- Developed a range of Python-based ML models, both open-source and proprietary, aimed at addressing various challenges in audio and text transcription domains. Notably, designed open-source ML models specifically tailored for audio and text transcription tasks, achieving an accuracy rate of 50% in Indic language classification. These projects involved leveraging Python libraries and frameworks to tackle complex language processing tasks.
- Audio and Text : Transcribe and Indic language classification.

Break

Parental Leave

CURRENTLY ON PARENTAL LEAVE FOR CHILDCARE RESPONSIBILITIES AND SUPPORT TO MY SPOUSE.

Jan. 2023 - Present

- Acquired practical expertise in machine learning during the break.
- Utilized various open source ML models to transcribe and classify the text and audios to various Indian languages. Open Sourced as VersaVox