HARISH PADMANABAN

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Summary

Bilingual Site Reliability Engineer with a research background in designing, testing, and implementing infrastructure and applications. A talented performer & leader with over 12 years of experience using source control tools to identify and fix bugs in code. A consistent team player with exemplary multitasking skills aiming to help organizations streamline DevOps Deployment Strategies, Application Operations, and CI/CD. Recognized for leadership skills, contributing to the successful approval of my EB2 NIW petition.

Skills

- DevOps & SRE principles: AWS ECS, EKS, Docker & Kubernetes
- GenAI with NLP ,Lang Chain & Haystack
- CI/CD Pipeline process: Maintenance & Troubleshooting
- Programming Languages: Python, Java, Shell
- Monitoring Tools: Splunk, Dynatrace, Kibana, Grafana
- Web Services: REST/SOAP, Nginx, HA Proxy, F5 Load Balancer Configurations
- Databases: MongoDB, Oracle, DB2, Microsoft SQL
- Methodologies: Agile(Scrum & Kanban)
- Leadership, Strategy, Product Management
- Observability: Open telemetry with CNF

Experience

J.P. Morgan Chase & Co | Houston, TX
Vice President - Site Reliability Engineering Lead
05/2017 - Current

- Managed cross-functional teams and stakeholder communication, overseeing Product (SRE) development from inception to implementation
- Led the product direction for a team of 3 Engineers and a designer for an organization-wide Hackathon
- Recruited to ramp up Engineering DevOps Site Reliability in Bangalore, Glasgow, and New York City
- Interfaced with Dev/QA/OPS teams to identify root cause analysis and re-instrument triggers to prevent future network degradation and outages
- Effectively communicated across organizations on various standards, services, and system metrics
- Drove process and run book documentation to minimize mean-time-to-repair (MTTR) on network events
- Provided leadership and managerial coaching to the SRE management team
- Developed AI Chat BOT help answers SRE related queries. Adopted by more than 10 teams helped reduced MTTD by 15%
- Developed and maintained 100+ fully automated CI/CD pipelines for code deployment using Jenkins
- Actively managed, improved, and monitored Production infrastructure running on Bare Metal Machines/Kubernetes/AWS/In-House Cloud
- Deployed and managed 20+ AWS Elastic Kubernetes Services, Elastic Container Service instances for migrating legacy applications into microservices
- Built and deployed Docker containers to break up monolithic apps into microservices

- Automated end-to-end post-release monitoring using cost-efficient open-source Machine Learning Libraries
- Developed proactive monitoring in-house tools to auto-detect production issues with the help of self-learning ML models
- Led a team of 6 across 3 geographical locations ensuring SRE delivery related to AI Ops for the banking platform
- Responsible for coaching and guiding the team to follow neat code standards
- Developed a framework that adopts SRE log standards, convincing 30+ teams to follow it.

Oracle | Bengaluru, KA
DevOps Engineer
07/2014 - 05/2017

- Developed 150+ Python scripts to deploy Java applications in Oracle Public Cloud
- Created 50+ Chef Cookbooks to automate product installations
- Maintained 70+ build jobs in Jenkins to ease CI/CD processes and formulated effective code promotion strategies
- Designed, created, and executed 1000+ software test plans and test cases
- Developed 200+ automation frameworks and scripts, coordinated with multiple remote QA teams to help support QA stability.

Oracle | Bengaluru, KA
Software Engineering Intern
12/2013 - 06/2014

- Developed a computerized utility in VB script that generated alerts in the supply chain model of Oracle Retail applications
- Created a Bug Repository Tool for tracing issues and potential failures in Oracle Retail Products, helping developers fix 1000+ issues quickly.

IBM India Software Labs | Bengaluru, KA
Research Intern
05/2012 - 11/2012

- Developed Makefile hierarchies capable of running more than 1000 parallel applications using the OpenMPI Library
- Developed the High Productivity Computing System Toolkit (HPCST) to detect bottlenecks in both parallel & serial applications.

Education and Training

JJT University | Jaipur, RJ
Ph.D. in Software Engineering & Computational Intelligence
05/2020

Coimbatore Institute of Technology | Coimbatore
Master of Science in Software Engineering
05/2014

Websites, Portfolios, Profiles

- https://harishpc.github.io/portfolio/

Certifications

- Diploma in DevOps Engineering - "Docker, Kubernetes, Google Cloud" from Alison
- Version Control with GIT from Atlassian
- Scalable Web App with Kubernetes from IBM
- Architecting IoT from EIT Digital
- Oracle Certified Associate from Oracle
- Machine Learning with Python from IBM

- DevOps & CI/CD from Virginia University
- Docker Essentials from IBM
- Linux Server Management & Security from University of Colorado
- Blockchain Essentials from University of New York
- AI from the Data Center to the Edge - An Optimized Path using Intel Architecture
- Certified Kubernetes Application Developer
- Certified Kubernetes Administrator

Research publications

- Implication of Artificial Intelligence in Software Development Life Cycle: A state of the art review
- Critical study of software models used cloud application development
- Quantum Computing and AI in the Cloud
- Maximizing IoT Security: An Examination of Cryptographic Algorithms
- Navigating the intricacies of regulations: Leveraging AI/ML for Accurate Reporting
- Xception Taylor Cascade Neuro Network based infection level identification of tuberculosis using sputum images

Book chapters

- Optimizing the Identification and Utilization of Open Parking Spaces Through Advanced Machine Learning
- Developing a Cognitive Learning and Intelligent Data Analysis-Based Framework for Early Disease Detection and Prevention in Younger Adults with Fatigue

Books

- Basics Of Artificial Intelligence And Intelligence Systems - Link
- Software Engineering - Link
- AI-Driven Site Reliability Engineering: Proactive Monitoring and Automation - Link
- The Future of AI in Site Reliability: Predictive Analytics and Self-Healing Systems - Link
- Machine Learning in Production: Techniques and Case Studies - Link
- Predictive Maintenance with Machine Learning: A Practical Guide - Link
- AI-Driven DevOps and SRE: Revolutionizing Operations with Generative AI - Link
- Mastering Site Reliability Engineering with Machine Learning - Link

Publications and contributions

- Active contributor to Medium and Dev.io, with over 20 published articles on AI, DevOps, and SRE topics.
- Reviewed more than 4 research articles related to AI

Patents and Inventions

- Primary inventor of the granted patent "Non Human Account Traceability Tool" (US & India) to scan organizational non-human accounts and trace their purposes to prevent unauthorized access. - Link
- Submitted the patent "Auto SRE Engine" to onboard SRE toolchain through automated workflow using AI. - Link

Honors and awards

- Winner of JPMC Hackathon top 10 projects for the year 2022 (Idea - Auto SRE Engine)
- Runner up of JPMC Hackathon Idea for the year 2017 (Intelligent DevOps Pipeline for Hadoop-Spark data streaming)
- Winner of JPMC Hackathon top 3 Ideas of the year 2019 (AI-DevOps: A Self-healing DevOps methodology)