Prasanna V Nagarajan

Principal Software Engineer - Microsoft

Bengaluru, Karnataka (IN)

🌐 https://prasanna.dev
in prasanna-v-nagarajan 🐦 pvenk

SUMMARY

Principal Software Engineer at Microsoft with 16+ years of experience in building and scaling enterprise software solutions. Currently leading AI/ML initiatives in Industry Solutions Engineering, focusing on Generative AI applications and data platforms. Proven track record of leading engineering teams, developing distributed systems, and creating scalable solutions across multiple clients. Passionate contributor to open-source projects with expertise spanning full-stack development, cloud-native applications, and technical leadership.

SKILLS

AI/ML Technologies
Advanced

Azure AI/ML   ML/LLM Ops
Generative AI

Cloud Platforms
Expert

Microsoft Azure   AWS
Cloud-Native Solutions

Programming Languages
Expert

Java   JavaScript   TypeScript
Ruby   Python   SQL

Software Engineering
Advanced

Full-Stack Development
Distributed Systems
Design Patterns
Test Driven Development

Leadership & Management
Advanced

Technical Project Leadership
Hands-on Technical Leadership
Pre-Sales Technical Consulting
Team Mentoring

Development Practices
Expert

Agile Methodologies   DevOps
CI/CD   JUnit   Code Reviews

WORK EXPERIENCE (2)

Jun 2022 - Current

Principal Engineer at Microsoft Corporation

📍 **Bengaluru, Karnataka, India**

Leading AI/ML initiatives and data platform development in Industry Solutions Engineering. Progressed from Senior Software Engineer to Principal Engineer, focusing on Generative AI applications and scalable enterprise solutions.

- Leading cross-functional teams to develop AI/ML solutions for enterprise clients using Azure AI services
- Architecting reusable patterns and accelerators for enterprise AI/ML solutions across multiple clients
- Driving technical strategy for Generative AI applications across multiple industry verticals
- Mentoring engineering teams and establishing best practices for AI/ML development, LLMOps and MLOps
- Contributed to open-source projects and internal tooling improvements

Jun 2009 - Jun 2022

Technical Principal at Thoughtworks Technologies

📍 **Global (India, Germany, South Africa)** 🔗

13-year journey progressing from Application Developer to Technical Principal across multiple countries. Led technical consulting engagements, international assignments, and large-scale software delivery projects.

- Led technical consulting engagements and provided strategic guidance on software architecture
- Architected, designed, and developed large-scale distributed systems for enterprise clients
- Led pre-sales technical consulting and solution design activities for enterprise clients
- Built enterprise web applications using Java, Ruby on Rails, and modern web technologies
- Implemented and mentored teams on agile methodologies, TDD, and software engineering best practices across multiple clients
- Gained international experience across 3 countries with multi-year assignments in Germany (2 years) and South Africa (1 year)

PROJECTS (5)

Aug 2024 - Current

Multi-Agent AI Platform for Banking

Multi-Agent AI   Azure AI Foundry   Semantic Kernel   Cross-Cloud Architecture   RPA

Designed cross-cloud platform orchestrating AI agents across Azure AI Foundry, Copilot Studio, and Semantic Kernel for Australian bank's AI transformation

- Built AWS-hosted platform managing Azure-deployed agents with unified observability
- Developed extensible RPA framework with BPMN workflow integration
- Enabled coordination between pro-code, low-code, and no-code agent paradigms

Oct 2023 - Jun 2024

Enterprise GenAI Gateway Pattern

Azure APIM   GenAI Gateway   AI Governance   Enterprise Architecture   Cost Optimization

Created comprehensive enterprise GenAI gateway pattern and tool-agnostic architecture using Azure APIM for AI governance and cost optimization

- Published Microsoft Learn module and open-source accelerator
- Implemented intelligent throttling and dynamic model routing
- Enabled accurate PTU capacity planning through usage analytics

Dec 2022 - Aug 2023

MLOps Model Factory Pattern

MLOps   Azure ML   Model Factory   CI/CD Pipelines   Open Source

Designed ML Model Factory pattern providing standardized pipeline templates for rapid model development, validated across retail and telecom sectors

- Reduced ML project setup from weeks to hours through template scaffolding
- Open-sourced as Microsoft MLOps Model Factory Accelerator
- Successfully deployed multiple models to production across industries

Dec 2018 - Dec 2021

Enterprise Retail Platform - POS Deployment

Microservices   Custom Orchestration   Large-Scale Deployment   Java   Golang

Led microservices platform deployment to 20,000+ POS machines with custom container orchestration and minimal downtime requirements

- Designed custom orchestration system using Docker Compose-like DSL
- Achieved 10-minute maximum downtime across diverse retail environments
- Enabled 60+ developers across 5 teams to deploy 40+ services independently

Jan 2017 - Nov 2018

Automotive Sales Portal - Microfrontends

Microfrontends   React   Dynamic Composition   Technical Leadership   Conference Speaking

Pioneered microfrontends architecture for automotive sales platform enabling independent team development with dynamic browser composition

- Led technical coordination across 40+ developers in 5 independent teams
- Developed browser-based dynamic composition system for unified UX
- Established thought leadership through conference presentations and publications

EDUCATION (2)

Jun 2011 - Jun 2013

Master of Science (MS) Software Systems at Birla Institute of Technology and Science

Advanced Operating Systems   Advanced Database Systems   Distributed Systems

Jun 2005 - Jun 2009

Bachelor of Engineering Computer Science at SSN College Of Engineering

Data Structures and Algorithms   Object-Oriented Programming   Database Management Systems   Computer Networks
Software Engineering

CERTIFICATES

Jul 2025

Microsoft Certified: Azure Data Scientist Associate
Microsoft
https://learn.microsoft.com/en-us/users/prasanna-msft/credentials/239AA67FC77C9276

Jul 2024

Microsoft Certified: Azure AI Engineer Associate
Microsoft
https://learn.microsoft.com/api/credentials/share/en-us/prasanna-msft/EBE7EEDD7CB8F952

Nov 2021

AWS Certified Solutions Architect – Associate
Amazon Web Services (AWS)
https://www.credly.com/badges/363481e3-ae7c-4feb-85ad-3b1fd2241d71?source=linked_in_profile