Abhinandan Mohan Raj

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github.com/abhi3047

Education

The University of Texas at Dallas Aug 2018 - May 2020
Master of Science in Business Analytics (GPA: 3.91 / 4.00) *Dallas, Texas*

Anna University May 2011 - May 2015
Bachelor of Engineering in Electronics and Communication (GPA: 3.62 / 4.00) *Chennai, India*

Technical Skills

Languages: Java, C-Sharp, JavaScript, TypeScript, Python, Scala
Frameworks: React.js, Angular, Spring Boot, ASP.NET, .NET Core
Technologies: Azure, AWS, NoSQL, EC2, AWS CodePipeline, Redis Cache, Service Bus, RabbitMQ, Docker, Kubernetes, Terraform, Zookeeper, CI/CD, Microservices, Git, Agentic AI, LLMs

Experience

Microsoft Oct 2024 – Present
Software Engineer 2, *CFAR Platform* *Redmond, WA*

- **Architected and deployed a domain verification AI agent** using the Semantic Kernel framework, automating **90% of verification cases** and reducing manual **review time by 70%**, significantly increasing operational throughput and accuracy.
- Spearheaded the production deployment of the Deny Assignment service, **remediating 220K Azure subscriptions** through robust CI/CD pipelines and comprehensive unit testing.
- Boosted Software Download Service efficiency and decision-making, achieving a **40% reduction in CPU consumption** by integrating CFAR algorithms to replace traditional threat metrics.

Microsoft Feb 2022 – Oct 2024
Software Engineer, *Azure Platform* *Redmond, WA*

- Scaled user experience for **1 million monthly active users (MAU)** on the Engage Hub portal by implementing debounce logic and a global distributed lock, eliminating race conditions and **reducing customer support tickets by 70%**.
- **Designed and deployed an event-driven architecture**, effectively decoupling microservices and enabling the User Management service to scale for **500K active users**. This led to a **60% reduction in response time**, boosting system performance and user responsiveness.
- Enhanced product security through a strategic migration of 12 microservices from AD Graph to the more secure MS Graph. This proactive measure **resolved 48 security bugs**, mitigating potential risks and security vulnerabilities.
- **Reduced data latency by 50%** by implementing **real-time synchronization between Azure Kusto and Cosmos DB** via change feed processing, delivering faster insights and more accurate data for analytical workflows.

Microsoft May 2020 – Feb 2022
Data & Applied Scientist, *Office Platform* *Redmond, WA*

- Engineered a Kusto-based Data Correctness (DC) module, seamlessly integrating it with ADF pipelines to bolster data accuracy in business metrics and **decrease backfilling by 40%**.
- Designed and built an optimized ADF pipeline for Office Scripts, effectively managing the surge in Cosmos data from OBD releases and **improving client-dependent function runtime by 30%**.