

# Manish Ranjan Mahanta

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## Summary

**7.5+** years of Software development experience in developing and deploying C# .NET & RESTful API projects, leading teams, collaborating across SCRUM teams and external clients & partners.

3+ years of System Design & Architecture experience designing, RESTful applications & Windows services and driving roadmap strategy with a strong bias for architecting for performance, scalability, security, and reliability.

A well organized, detail-oriented, versatile professional and ethical team player with a high standard for quality & passion for learning, exploring technologies and growing within an organization with strong Computer Science background and solid C# development and debugging skills.

## Skills

- |                                |                                |                     |
|--------------------------------|--------------------------------|---------------------|
| • C# .NET                      | • Data Structures & Algorithms | • Team Leader       |
| • MVC   REST API               | • DevOps CI/CD                 | • Mentoring         |
| • System Design & Architecture | • Agile (SCRUM)                | • RESTful MVC       |
| • Design Patterns              | • Unit Testing / TDD           | • Azure & AWS Cloud |

## Work Experience

### Senior Engineer

**04/2021 – present**

*Unisys India Pvt. Ltd, Bengaluru, KA*

#### Diagnostic Collection Suite

- Took ownership of analysis & articulation of complex issues & technologies in DCS project which collects diagnostics from various servers and sources in large scale distributed Mainframe OS systems environment, greatly reducing manual efforts and improving the ease of debugging.
- Architected and led the development a RESTful API for DC for automated error detection & diagnostic collection resulting in early detection & diagnosis and reduction in average issue/bug turnaround time by 25%.
- Refactored UI/UX design by optimizing & making improvements in JavaScript resulting in a smoother, responsive and better customer/user experience, & fixing UI bugs and issues in the process.

#### Firmware Version Service

- Responsible for Architecture & System Design for enhancing existing FVS Application, a monolith .NET MVC (REST API) based monitoring/reporting product primarily used to query system firmware details.
- Increased the reporting output by 10X and performance by 15% by re-architecting core - monitoring & reporting API system design and leveraging algorithmic improvements & design patterns across the product.
- Fostered a team-culture of doing it right the first time by emphasizing on careful analysis, design and architecture discussions prior to code, and setting high coding standards by stringent code reviews & high coverage Unit Tests.
- Worked with project managers, developers, quality assurance and customers to resolve technical issues.
- Trained and mentored junior developers and engineers, teaching skills in .NET Design Patterns, Virtualization & DevOps and working to improve overall team performance, involving them in architectural and high-level bug discussions to incorporate open, honest, and inclusive approach to problem solving

#### AWS, Azure & VMware Cloud Adoption

- Drove roadmap strategy and definition for AWS and Azure Cloud Platform adoption & support for Unisys CPF Solutions, leading global & external collaboration to pool Cloud expertise with the goal to provide best possible customer experience resulting in acquisition of *\$144 million* client contract.
- Led multiple teams of 3-4 members to evaluate mainframe solution's deployment on native cloud, exploring possibilities & challenges in architecting & migrating OS stack on AWS, Azure & VMware Cloud.
- Improved processes and customer experience by increasing availability to 99.99% and documenting best practices learnt by leading teams to evaluate platform's BCDR capabilities & inducing complex fault-injections.

#### Unisys Mainframe – Inter Server Communication

- Improved the architecture & security of inter-platform communication leveraging use of Schannel (TLS/SSL), IO Socket SSL for Perl, CIFS, SMB and EFS encryption.

## Systems Engineer

07/2017 – 03/2021

Unisys India Pvt. Ltd, Bengaluru, KA

### Soft Tape Manager

- Worked on SDLC for a new product STM 2.0, offered as enterprise-level tape storage management suite for Unisys Mainframe environment, enhancing experience and reducing additional expenses for client businesses.
- Communicate effectively and partner with other SCRUM teams and disciplines of the overall product team including Platform Test, System Test and ID teams to deliver high quality solution from initial product design to production.
- Lead architecture, design and implementation of back-end features using C#, JUnit Unit Testing framework, Unity Dependency Injection leveraging MVC, Repository, Factory & Strategy Design Patterns.
- Team Leader for complete software development life cycle development – SPA UI/UX Design, .NET backend with SQL Database, improving Suite revenue by 15% YoY, bringing in \$12.6 million contract.
- Improved DevOps process reducing build time 25% by strategically restructuring pipelines, leveraging 7 years of full software development life cycle experience in source control management, build processes, code analysis, testing and staging.

## Associate Engineer

06/2016 – 07/2017

Unisys India Pvt. Ltd, Bengaluru, KA

### Soft Tape Manager

- Worked on initial release of STM 1.0 offered as dev-test only product, enabling the client business to evaluate and provide early feedback, enabling us to improve our product roadmap and features, along with enhancing customer experience.
- Drafted initial coding standards and practices, leveraging community and industry peer's experience while improving the draft with the learnings during the software development lifecycle.
- Led core tape emulation mechanism architecture and development, leveraging CIFS, Windows APIs, Linux Shell Scripts for data-plane, along with RESTful API for control plane. [Patent - US 15/933,662]

## Projects

### [BetterCoder.in](#)

- ASP .NET MVC with Razor Pages & Identity + Azure SQL DB based website hosted on Azure App Service with a goal to upskill the core Computer Science competencies with practice roadmap for reinforcing data-structures and algorithms with carefully curated and categorized LeetCode questions with solutions, inspired from NeetCode.io. Open-source on my GitHub repository, with collaboration from the community.

### URL Shortner

- URL Shortener based MERN Stack, leveraging 6-character unique dynamic key to store the requested long URL and return a short URL

### Data Encryption using EC-ElGamal

- A server-client chat program using EC-ElGamal encryption. Explored challenges in traditional EC ElGamal version, and implemented a resolution which involves choosing two plaintext integers  $m_1$ ,  $m_2$  and then "twisting" them into an elliptic curve point

## Achievements

- SME for VMware HA & DR and Azure Site Recovery integration with Mainframe Suite
- Patent for inter-server communication and control mechanism for Soft Tape Manager
- One of the Fastest Promotion in India Technology Center from AE to SE
- Silver Recognition Award for exceeding annual performance expectations

## Certifications

- AZ900: Azure Fundamentals
- AWS Cloud Practitioner

## Education

Bachelor of Technology (B. Tech) - Computer Engineering

May 2016

NIT Surat (SVNIT) - CGPA 7.33