# **Mohan Ramasamy**

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AI-generated content may be incorrect.   [github.com/itsmohan527](http://github.com/itsmohan527)  |    A blue square with white letters on it

AI-generated content may be incorrect.    [linkedin.com/in/itsmohan527](http://linkedin.com/in/itsmohan527) |    A black and white circle with a badge

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**Professional Summary**

Distinguished Systems Engineer with a 15+ Years of specialized experience in automotive design, focusing on ECS/SE Tools and processes. Proficient in translating intricate customer requirements into precise system design specifications, conducting comprehensive analyses of production-scale ECS software and hardware, and facilitating seamless system integration. Adept at managing complex requirements and tracking issues with precision. Exceptional communicator with a proven ability to mentor teams and deliver technical solutions that drive project success.

**Education**

Bachelor of Engineering in Computer and facilitating seamless *(Converted 78% to 3.9)* - M. Kumarasamy College of Engineering, Anna University, India (2005 – 2009)

**Certifications**

*SAFe® 5 Practitioner – Scaled Agile Inc*

*Green Belt Certification – Issue Management Project*

*Six Sigma DFSS Stats for Black Belt Certification – Tool and Process Issues in Automotive*

*DMAIC Project – Reduction in Time for Estimation Efforts of Rational DOORS Training & Asset Management and process to detect ownership maintenance.*

**Work Location**

*Companies (Direct): General Motors Warren, Michigan | Capgemini America Warren, Michigan | Tata Consultancy Services Warren, Michigan; Chennai, Bengaluru, Pune, India*

*Companies (Client):  General Motors Warren, Michigan | Electro Motive Diesel ‘Progress Rail – A Caterpillar Company’ Chicago, Illinois*

**Skills**

|  |  |
| --- | --- |
| **Category** | **Skills & Tools** |
| Requirements & Testing | DOORS, DNG, RQM, JAMA, JIRA, JIRA Align |
| Config & Project Tools | RTC, Global Config, Synergy, Change, Gerrit, Jenkins, GEARS |
| Dev Environments | QNX Momentics, Visual Studio, Windows, Linux, QNX RTOS |
| Programming & Scripting | C, C++, Python, Shell, DXL | MISRA C/C++ |
| Practices | CI/CD, BDD, TDD, Bench Testing, Root Cause Analysis |
| Docs & Automation | SharePoint, OneNote, Markdown, Power Apps, RPE |
| Databases | Informix, MS Access, SQL (basic) |
| Knowledge | Mentoring, Technical Interviews, SharePoint Admin |

**Current Major Project – Inprocess**

* *DOORS to DOORS Next Migration*
* *DOORS Information Lifecycle Management (ILM)*
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  AI-generated content may be incorrect.***Pilot CTRS Project Documentation to DNG*

**General Motors Corp | January 2019 – Present | 6 Years+**

**ELM Suite Operations and Automation • Systems Engineering Tools**

General Motors Corp. | January 2023 - Present | 2+ years \*| Warren, Michigan

DOORS to DOORS Next Migration: Currently leading the automation of the DOORS to DOORS Next (DNG) migration process. Developing tools to streamline migration tasks and maintaining a tracking system to monitor progress and support a smooth, end-to-end migration effort. Process developer and executor in DOORS to DNG migration with automation and script development. Developed an organization tracking system for end-to-end migration, ensuring seamless transition and minimal disruption to ongoing projects. Implemented automated scripts to streamline the migration process, reducing manual effort and increasing accuracy. Conducted extensive testing and validation to ensure data integrity and compliance with industry standards. Provided training and support to engineering teams to facilitate the adoption of new tools and processes.

DOORS Information Lifecycle Management (ILM): Driving the implementation of ILM practices within the DOORS environment to manage engineering data throughout its lifecycle. Establishing processes for Litigation Hold, data retention, and traceability. Collaborating with cross-functional teams to protect critical data and integrating ILM workflows into existing systems to strengthen data governance and audit readiness.

Pilot CTRS Project Documentation to DNG: Working on Controller Technical Requirements Specification (CTRS), which defines technical needs for automotive controllers. The document is created using a Document-By-Parts (DBP) system that splits it into separate Word files by sections. Currently helping with a pilot project to move CTRS documents into DOORS Next (DNG), making sure the content fits the new system and stays clear and traceable.

**ECS Tool Documentation Product Owner**

General Motors Corp. | September 2022 - Present | 3+ years \*| Warren, Michigan

Document Management Product Owner (Markdown): Maintained Electrical Control System and System Engineering departments' tools and process documentation, announcements, and release letters. Migrated various document inputs to Markdown and version controlled using GitEcosystem and SharePoint Online.Jenkins and Gerrit: Utilized Jenkins and Gerrit to create and manage CI/CD pipelines, ensuring efficient and reliable software delivery for markdown documentations.

GitHub and GitHub Actions: Leveraged GitHub for version control and implemented GitHub Actions to automate various development tasks and workflows.

Python Scripting: Developed Python scripts to automate the conversion of documentation, enhancing workflow efficiency.

**ELM Suite UAAT (User Adoption and Training) Engineer**

General Motors Corp. | January 2019 - Present | 6+ years \*| Warren, Michigan

User Adoption and Training: Provided first and second level support to resolve user issues, optimize and deploy IBM Rational DOORS, Doors Next Generation (DNG), Global Configuration Management, Team Concert, Rhapsody, Synergy, Quality Manager, and Big Lever GEARS software tools. Supported Electrical Control System and Systems Engineering Departments through all phases of Application Lifecycle Management (ALM), including setting engineering requirements, managing changes, version control, storage, testing, and production of test results for conventional, electric, and autonomous passenger vehicles. Conducted Rational tools requirements gathering, created project management processes for engineering teams, including engineering frameworks and rulesets, and obtained feedback to identify improvement areas. Analyzed system or module requirements from different business groups and supported migration of requirements into Requirement Management System tools. Troubleshooting tools usage issues, provided user support, and customized features of IBM Rational DOORS, GCM, and DNG tools for effective usage and business requirements. Coordinated engineering requirement review meetings to analyze new system requirements and supported requirements gathering for teams. Coordinated partners, stakeholders, and engineering working groups engaged in project work.

**Pilot Engineer to Migration of DOORS Next to Jama**

General Motors Corp. | March 2021 -April 2022 | 1 year | Warren, Michigan

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AI-generated content may be incorrect.Migration of DOORS Next to JAMA (Pilot): Created a pilot environment for JAMA Connect setup for the migration of requirement modules from DOORS and DOORS Next. Explored configuration management options in JAMA Connect. Coordinated with requirement management and test management tool developers and administrators for customization.

**Capgemini North America, Inc. | May 2016 - January 2019 | 2 years 7 months**

**IBM Rational Tool Technical Specialist**

Capgemini North America, Inc. | May 2016 - January 2019 | 2 years 7 months | Warren, Michigan. *(Client: General Motors Warren, Michigan)*

Deep Understanding in IBM Rational Suites process and development.Extended knowledge in Product Lifecycle Management.Provide first and second level support to resolve user issues, optimize and deploy IBM Rational DOORS, Doors Next Generation (DNG),Global Configuration Management,Team Concert, Rhapsody, Synergy, Quality Manager and Big Lever GEARS software tools, used by Electrical Control System, Systems Engineering Departments Engineering through all phases of Application Lifecycle Management (ALM) including setting of engineering requirements, to requirements changes, versions control, storage, testing and production of test results of conventional, electric and autonomous passenger vehicles.Work on Rational tools requirements gathering, create project management processes for engineering teams including engineering frameworks, rulesets and obtain feedback and identify improvement areas including backup processes.

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**Tata Consultancy Services | February 2010 - May 2016 | 6 Years 3 Months**

**NGT (Next Generation Tools) Consultant and SWAT Team Member**

Tata Consultancy Services | October 2014 - May 2016 | 1 year 7 months | Michigan. *(Client: General Motors Warren, Michigan)*

Tool adoption within the ECS user community, guiding the migration from unstructured formats such as Microsoft Word and rich text documents to structured process engineering environments using IBM Rational DOORS. Played a key role in the initial evaluation and deployment of IBM Rational DOORS, DNG (DOORS Next Generation), and ETM (Engineering Test Management) tools, ensuring alignment with enterprise engineering standards and lifecycle processes. Provided both first- and second-level support to resolve user issues, optimize tool performance, and ensure successful deployment of IBM Rational applications. Supported business units in analyzing system and module requirements, enabling seamless migration into formal requirement management systems. Customized tool features and configurations to meet specific business needs, particularly within DOORS, GCM, and DNG environments, enhancing usability and traceability.  
  
Actively coordinated engineering requirement review sessions to capture and refine new system needs, while fostering collaboration among stakeholders, partners, and engineering working groups. This cross-functional engagement ensured consistent alignment between business objectives and technical implementation, driving efficiency and quality across the product lifecycle.

**IBM Suite COE- Mentor**

Tata Consultancy Services | March 2014 - October 2014 | 6 months | Bengaluru. *(Client: Tata Global Organization)*

Served as a professional mentor within the TCS global Center of Excellence (CoE) team, providing expert guidance on the use and optimization of IBM Rational products across TCS global development and lifecycle management teams. Delivered in-depth training and conducted seminars for global user groups, focusing on advanced tool capabilities, integration strategies, and best practices to enhance product development and lifecycle efficiency. Played a critical role in promoting standardization, improving adoption, and aligning tool usage with enterprise-wide engineering and business objectives. Acted as a key liaison among stakeholders, engineering teams, and product owners to ensure consistent collaboration and value delivery through the IBM Rational Suite.

**IBM Tool Administrator & Support Engineer**

Tata Consultancy Services | March 2011 - October 2014 | 3 years 6 months | Chennai. *(Client: Electro Motive Diesel ‘Progress Rail – A Caterpillar Company’ Chicago, Illinois)*

Full lifecycle of Rational tools upgrade and integration across development, user acceptance testing (UAT), and production environments. This involved installing and configuring all prerequisite software and Rational applications on Red Hat Enterprise Linux systems, as well as applying and validating patches to ensure system stability and compatibility. Integration of the Rational suite was executed in alignment with enterprise workflows, in close collaboration with development, QA, and operations teams. Deployment processes were streamlined through automation and standardized configurations, resulting in reduced setup time and improved operational efficiency. All activities adhered strictly to enterprise IT security and compliance standards.  
  
In the role of Rational Tools Administrator, critical production incidents were managed with a focus on root cause analysis and the implementation of long-term solutions to enhance system reliability. Application performance was optimized through tuning and code restructuring, significantly reducing maintenance frequency. Comprehensive support was provided to business users, addressing technical issues, system errors, and user queries with minimal disruption. User and access management was handled efficiently, including the administration of accounts, groups, profiles, and workspaces to ensure secure and role-appropriate access. Additionally, documentation and training materials were developed to support user onboarding and reduce support ticket volume, contributing to a more stable and user-friendly environment.

**Assistant Systems Engineer**

Tata Consultancy Services | December 2010 - March 2011 | 3 months | Pune. *(Client: Electro Motive Diesel ‘Progress Rail – A Caterpillar Company’ Chicago, Illinois)*

Collaborated as a key team member in implementing comprehensive end-to-end traceability for both high-level and low-level system requirements, ensuring accurate alignment from IBM DOORS to object-oriented design models in IBM Rhapsody. Contributed to mapping requirements to model elements such as use cases, state machines, and class diagrams, supporting full traceability throughout the development lifecycle. This effort ensured compliance with system specifications, industry standards, and internal development processes, while also enhancing verification and validation activities, audit readiness, and impact analysis capabilities.

**Software Developer – FIRE GUI Migration & Integration**

Tata Consultancy Services | February 2010 - December 2011 | 1 year 10 months | Pune. *(Client: Electro Motive Diesel ‘Progress Rail – A Caterpillar Company’ Chicago, Illinois)*

Successful migrated the FIRE GUI (Functionally Integrated Railroad Electronics Graphical User Interface) library functionalities from Windows MFC (Microsoft Foundation Class) to QNX, utilizing C++ to ensure robust cross-platform compatibility. Enhanced the graphical interface and resolved critical defects within the QNX Momentics IDE, significantly improving system performance and reliability. Collaborated with multiple internal departments to integrate the FIRE GUI with middleware and control systems, enabling seamless communication across subsystems.

**Declaration**

I hereby declare that the information given above is true and correct to the best of my knowledge and belief.