Maheswari Manoharan

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PROFILE

- Hands-on software engineer with end-to-end ownership of enterprise-scale platforms, APIs, and analytics systems in regulated environments, driving cloud-native and distributed architectures, influencing cross-team technical direction, and mentoring engineers to deliver reliable, business-critical solutions.

EDUCATION

- Master of Science (Computer Science), Bharathiar University, India

PROFESSIONAL EXPERIENCE

Arch Capital Services LLC | Manager | June 2025 – Present

- Lead the Implementation Engineering team within Strategic Analytics Services, delivering analytics platforms for commercial and specialty insurance (Surety with Moody's integration, Healthcare, Professional Liability-Cyber, Lawyers, PUA and Real Estate).
- Architect and deliver Python-based, cloud-native analytics and API platforms on Azure, supporting predictive analytics models and data-driven systems.
- Enable production-grade MLOps, including model serving, real-time and batch data pipelines using Databricks, Azure Data Factory and Snowflake.
- Implement CI/CD pipelines and modern developer workflows using GitHub Actions and GitHub Copilot to improve quality, reliability, and deliver velocity.
- Serve as the execution and communication bridge between executive leadership and distributed engineering teams, driving compliant delivery, accountability, and alignment in a regulated insurance environment.
- Manage cross-functional delivery across Data Science, Data/Feature Engineering, Data Visualization, QA and Implementation Engineering teams through effective prioritization and relationship building.

- Lead and mentor an offshore engineering team, maintaining operational excellence through PR governance, CAB approvals, and controlled release processes.
- Partner with external vendors and third-party providers to align integrations, data exchanges, and delivery timelines with business, security and regulatory requirements.

Cox Automotive (Manheim), Atlanta, GA | Lead Software Engineer | March 2015 – May 2025

Shop Operations/Seal/Proton Team (April 2022 – May 2025)

- Led development of Python/AWS Serverless services, deployed via AWS Code Pipeline/GitHub Actions.
- Built microservices and APIs with event-driven architecture and Change Data Capture (CDC).
- Automated/unit testing with pytest; supported functional, regression, and end-to-end testing.
- Participated in architectural design, created Lucid chart diagrams, provided on-call support, and reviewed GitHub pull requests.
- Upgraded AWS RDS Oracle and Postgres databases.
- Supported Java and Ruby services; used Terraform for IAC, Jenkins for CI/CD, deployed on AWS Elastic Beanstalk/EC2.
- Maintained Rally, authored stories, ran standups, presented quarterly planning, and took client calls.
- Participated in interview panels, onboarded new team members, maintained knowledge sharing, and cross-trained teams.
- Collaborated with Cox Auto security group to mitigate security issues using Aqua, Veracode, and implemented automated change requests.
- Supported key deliverables for CarMax, Hertz/Auto Integrate, AMP/RRC, LMS, Capture retirement/Designated Description Service integration.

Vehicle Information/Vipar Team (June 2020 – April 2022)

- Technical lead and backend developer for vehicle imaging services.
- Developed microservices using Java, Spring Boot, SOAP/REST APIs with MySQL Aurora, DynamoDB, AS400.
- Deployed services in AWS using SQS, SNS, EC2, Elastic Beanstalk, CloudWatch, CloudFront, X-Ray, S3, CloudFormation, Terraform, Jenkins.
- Wrote unit, automation, and performance tests with Junit, Cucumber, Wire Mock, JMeter.
- Supported on-call rotations, guided offshore team, migrated legacy tomcat webservices to AWS.
- Used Rally, SAFe Agile, Run scope, Datadog, New Relic, Splunk, PagerDuty, Aqua, Git, Maven, Artifactory, Docker.
- Supported Manheim Image Capture (MIC) and Fyusion deliverables.

Redline Team (Jan 2020 – June 2020)

- Full stack developer for Seller Dashboard.
- Developed with Angular (NgRx), Ruby on Rails, Marble, Jasmine, RSpec, Capybara; deployed in AWS via Jenkins CI/CD.

EpICS Team (March 2015 – Dec 2019)

- Backend developer for enterprise integration teams.
- Built APIs using AWS Elastic Beanstalk, EC2, CloudFormation, DynamoDB, Jenkins.
- Developed webservices in Java, Spring Boot, SOAP/REST APIs, Tibco SOA, deployed on Tomcat, Tibco servers, Oracle, AS400/DB2.
- Implemented authentication/authorization with LDAP & Mashery, event-driven architecture.
- Provided on-call support, maintained 100+ webservices for Common Services.
- Supported MMR/Valuations API, GFB API, VIN decoding, legacy transportation, Salesforce bridge, Arbitrations, Notes API, Ford Quic, Auction Inventory Registration, Transaction Web Service, Nissan dashboard, MBonDemand, RMS, Gavel to Gate.

Sterling Backcheck, Atlanta, GA | Senior Software Engineer | July 2013 – March 2015

- Full stack developer for Client Integrations team.
- Developed applications using Java, JSP, Spring Framework, SOAP web services.
- Wrote unit tests with Junit, screen scraper tests with Selenium, performance tests with JMeter.
- Collaborated with DBAs for SQL Server performance tuning.
- Troubleshot Tomcat, JBoss, Apache webservers.
- Provided on-call rotation, worked with offshore teams, coordinated with product, engineering, and security teams.
- Supported employment background checks for Lockheed Martin, Taleo, Tumi, Amazon, and 80+ clients.
- Participated in client support calls and executive interactions for time-sensitive background check integrations.

AI ENGINEERING (Independent Projects)

- Self-directed AI engineering initiatives translating applied use cases into scalable, production-grade system designs.
- Git:
    - https://github.com/maheswarim-work/MyPerson
    - https://github.com/maheswarim-work/MyPerson-Mobile
    - https://github.com/maheswarim-work/maheswari-manoharan-ai-portfolio

- Tools: Cursor IDE, Claude Code, Bolt.new
- Technologies: AWS Bedrock, AWS CloudFormation, Python, NextJs/React Native, GitHub Actions. Cloudflare.
- Designed and built end-to-end AI-driven applications as personal projects, applying modern LLM-based architectures, automation workflows, and AI-assisted development practices.
- Hands-on development across backend services, application logic, and user-facing components, focusing on practical, production-style AI use cases.
- Evaluated and integrated AI-first developer tooling to accelerate development velocity and improve code quality, including:
  - Cursor IDE for AI-assisted coding and refactoring
  - Claude Code for advanced reasoning, code generation, and architecture exploration
  - Bolt.new for rapid prototyping and full-stack application scaffolding
- Explored AI-enabled productivity patterns, including prompt engineering, agent-based workflows, and iterative design-to-code pipelines.
- Applied software engineering best practices (modular design, version control, deployment readiness) to AI projects to mirror real-world production environments.

CERTIFICATIONS

- AWS Certified AI Practitioner https://www.credly.com/badges/b672254c-de4b-4da9-89c3-daf75c2ffe2f
- AWS Certified Developer Associate https://www.credly.com/badges/d2b25f31-a00a-4277-9fed-f2c9402cf812
- Databricks Fundamentals https://credentials.databricks.com/4abc3d1b-e1cc-4afd-a138-afd6d76374f9#acc.XzxFho6d
- HashiCorp Certified Terraform Associate https://www.credly.com/badges/4289e9d1-09fb-4151-908e-8cd496c9692b