

Manimaran Selvan

Engineering Leader / Software Architect

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Software Architect with 16 years of experience, specializing in critical architectural and technical decision-making. Expert in designing robust system architectures and scalable cloud solutions. Led cross-functional teams to modernize legacy systems and drive product innovation, enhancing performance and reliability. Mentored team members, improving team performance and product quality. Proficient in Agile methodologies, enhancing operational efficiency and streamlining processes. Seeking to leverage my expertise and leadership skills in a challenging senior Engineering/Product role.

Skills

Programming Languages: Java, Groovy, Python, JavaScript, TypeScript	Cloud Providers: AWS, GCP	Search: Amazon OpenSearch, ElasticSearch, Solr, Lucene
Framework/Libraries: Spring, Spring Boot, Node.js, Angular, React	Containerization: Docker, Kubernetes, EKS, ECS	Messaging: Kafka, AWS Messaging
Source, Build & CI/CD: Git, Github, Bitbucket, GitLab, Gradle, Maven, Jenkins	API / API Tech: REST, Swagger, GraphQL	Collaboration & Productivity: Jira, Confluence, ChatGPT, Google Workspace, MS365, Figma, Lucidchart, Grafana
Databases/Cache: MySQL, PostgreSQL, MongoDB, DynamoDB, Redis, Memcache		
Generative AI: LLaMA, GPT, LangChain, HuggingFace, Pinecone, PyTorch, RAG, Fine-tuning, Prompt engineering		
AWS Services: EC2, EBS, EFS, AMI, S3, IAM, VPC, API Gateway, ECS, EKS, Fargate, Lambda, AppSync, Amplify, Step Functions, Cost Explorer, Cost and Usage Reports (CUR), Cognito, CloudFormation, Cloudwatch, Cloudtrail, SNS, SES, SQS, RDS/Aurora, DocumentDB, DynamoDB, ElastiCache, OpenSearch, Quicksight		
Soft skills: Strategic Planning, Leadership & Team Collaboration, Agile & Lean Methodologies, Continuous Improvement, Product Vision & Mission, Vendor Management, Stakeholder Management, Change Management, Testing Methodologies, Decision Making, People Management, Coaching/Mentoring, Crossfunctional Collaboration, Conflict Resolution		

Certification

AWS Certified Solutions Architect - Professional	Sep 27, 2024 – Sep 27, 2027
Validation Number: e478210227fd46fdacc48b5e403dba0	

Experience

IT Consultant (Software Architect)	Jul 2023 – Present
<i>Pragya Consulting Services Brussels, Belgium</i>	
On-site from Jul 2024 – Delivered innovative cloud and AI solutions, serving as a hands-on architect and technical expert. Focused on designing robust, scalable architectures and solving complex technical challenges.	
<ul style="list-style-type: none">Designed and deployed scalable, cloud-native architectures on AWS, optimizing performance, fault tolerance, and cost-efficiency for diverse enterprise use cases.Developed AI-driven solutions utilizing LLaMA models, integrating them with custom retrieval-augmented generation (RAG) pipelines to enable intelligent, context-aware decision-making.Enhanced team productivity by introducing streamlined CI/CD workflows and ensuring alignment with Agile methodologies.Conducted code reviews, architecture validations, and cloud cost audits to ensure robust designs and operational efficiency.	

Technical Product Manager

Aug 2017 – Jun 2023

Trilogy Enterprises | Austin, Texas (Remote)

Led cost-saving initiatives, architected and developed CloudFix, and improved work allocation and delivery processes. Co-managed TPMs and spearheaded cutting-edge product development using modern AI technologies.

- Achieved \$15M savings in 3 months by developing CloudFix, leading to over \$100M in cumulative savings for customers.
- Designed and developed an AI-powered chatbot for CRM, leveraging Python, LangChain, GPT-3.5 API, and RAG to deliver intelligent, context-aware conversational capabilities. Achieved a 75% improvement in customer interaction efficiency and significantly reduced support overhead.
- Implemented lean software assembly lines for efficient work delivery through well-defined work units and 24/7 operations for a global workforce of over 5K.
- Co-managed 60+ TPMs, preparing for a VP role by working alongside the retiring VP.
- Developed tools for specification ordering, search, ranking, and CTO boot camps using AWS technologies, reducing operational overhead by 75%.

Lead Software Engineer

Jan 2015 – Aug 2017

Trilogy Enterprises | Austin, Texas (Remote)

Centralized IT operations, managed senior SREs, automated processes, contributed to tools architecture and development, and handled M&A activities

- Centralized IT operations for a global workforce of 5K+, achieving 85% cost savings.
- Coached and managed 20+ senior SREs, enhancing their productivity by 4x.
- Authored M&A IT transition playbooks, integrating over 15 acquisitions.
- Implemented JIRA workflows and advanced automation, reducing operational overhead by 75%.
- Contributed to the development of VDI2, a web app for deploying AWS services with an audit trail, preceding AWS's comprehensive IAM and compliance features.

Technical Co-founder

Oct 2013 – Dec 2015

Tissow Technology Ventures | Chennai, India

Architected and developed Humingo, replatformed Ticketgoose, and optimized tech operations by switching cloud providers.

- Built Humingo, an e-commerce product discovery and aggregation platform, comprising a distributed crawler and product classifier, in 6 months using Cloudera Hadoop, Apache Solr, Lucene, HDFS, Zookeeper, and Kafka.
- Modernized Ticketgoose, a bus ticket booking platform, reducing operational complexity and improving user experience in 3 months using Spring framework.
- Reducing TCO by 50% by switching from AWS to Linode, and later moving back to AWS after the introduction of GP2 volumes.

Senior Associate

Dec 2011 – Oct 2013

Nallan Technology Ventures | Chennai, India

Architected and built Kachyng, a PCI-compliant mobile payments platform.

- Implemented single-click checkout, enhancing UX by reducing transaction time by 50%.
- Led the PCI compliance initiative, implementing encryption, tokenization, and rigorous security protocols to meet stringent security standards, successfully passing all compliance audits.

Technical Co-founder

Aug 2010 – Dec 2011

EMRG Software Solutions | Chennai, India

Led a 10-member team, architected, and developed 2 products in the financial information research space.

Systems Engineer & Java Application Developer

Aug 2008 – Aug 2010

YuMe | Chennai, India

Managed infrastructure and automated deployments across 6 environments, overseeing production deployments, migrations, and daily DevOps tasks. Conducted R&D in early mobile technologies, developed native apps, and created proof-of-concepts using Google Web Toolkit.

Education

B.Sc Computer Science

2008

Bharathidasan University | Trichy, India