

# Ashwin Gopalsamy

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## SUMMARY

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Staff Software Engineer at Visa with 5 years in **payment infrastructure, distributed systems, and AI-assisted product development**. Own critical Go microservices handling millions of payment authorisation decisions daily under **PCI-DSS** compliance. Published researcher in machine learning (Springer, 2022) and Visa **GenAI Ambassador** driving AI-first development practices across engineering teams. Proficient in **Go, AWS, Kubernetes, and Terraform**.

## WORK EXPERIENCE

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### Staff Software Engineer, Visa.

June 2025 - Present - Remote.

- Own 4 Go microservices at Pismo's network ingress layer, parsing and routing **ISO8583** messages across Visa, Mastercard, Tecban, Elo, and RuPay, processing **millions of real-time card authorisations daily** under **PCI-DSS** and **PSD2** compliance in a **multi-region zero-downtime** setup.
- Engineered cross-region authorisation infrastructure with seamless failover and zero-transaction-loss guarantees, powering Pismo's cloud-native platform serving banks and fintechs globally.
- Led evaluation and adoption of AI-assisted development tooling as part of Visa's **GenAI Ambassadors**, establishing coding standards and review workflows for LLM-generated code across **engineering teams** and authoring AI development guidelines adopted by **all squads** at Pismo.
- Built a full Claude Code ecosystem for the team: custom AI agents specialized in **ISO8583 parsing and PCI compliance**, MCP integrations to Jira, Codefresh, and Grafana, and **multi-agent workflows** for code review, debugging, and deployment across owned services.

### Professional Engineer, Solaris SE.

June 2022 - June 2025 - Remote.

- Engineered the complete lifecycle of 'Credit Card Interest' product, from design to post-release, collaborating with internal teams and product owners, generating revenue over **EUR 30M annually**.
- Owned 'Accounts Domain', with AWS, Kubernetes, Terraform stack supporting over **20M transactions per day**.
- Engineered 100% cloud-native, event-sourced microservices in Core-Banking system, achieving **99.999% uptime**.
- Led end-to-end development of 'Savings Account' product, driving **significant revenue growth**.
- Maintained on-call rotations, observability dashboards, and runbooks that improved **incident response times**.

### Associate Software Engineer, Hexaware Technologies.

June 2021 - June 2022 - Remote.

- Designed and shipped backend services across enterprise distributed systems, owning API contracts, data modeling, and integration testing for client-facing production workloads.
- Deployed a Cloud HRMS product for a major automotive client, ensuring operation and user experience for over **75K employees** within a system valued at **USD 1.5B**.

### Intern, Microsoft.

4 months - Remote.

- Open-source contributions on Microsoft Azure Cloud and GitHub (Future Ready Talent programme).

## SKILLS

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- **Languages:** Advanced in **Go (Golang)**, with working knowledge in **Python, JavaScript** and **Bash**.
- **Domain:** **ISO8583, PCI-DSS**, payment rails, interest engine, card network protocols (Visa, Mastercard, RuPay).
- **Cloud & DevOps:** **AWS, Kubernetes, Terraform, Docker, Codefresh CI/CD, ArgoCD, Grafana, Prometheus**.
- **Architecture:** **Microservices, event-sourced architecture, distributed systems, REST, gRPC**.
- **Databases:** **PostgreSQL, MariaDB, DynamoDB, Athena, Redis, Cassandra, Snowflake**.
- **AI & Developer Tooling:** **Claude Code** (full plugin development: skills, hooks, agents, MCP servers), **LLM internals** (context windows, tool-use protocols, token economics), **multi-agent system design**, AI-assisted development workflows.
- **Quality & Security:** **SonarQube, Checkmarx SAST, Sentry**, structured logging, integration, acceptance, end-to-end and load testing.

## EDUCATION

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**Hindusthan College of Engineering and Technology (Anna University)** *August 2017 - May 2021.*  
*Bachelor of Technology in Information Technology* **CGPA: 8.32/10.0, First Class with Distinction**

## RESEARCH PUBLICATION

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**Intelligent Traffic Management System Using Machine Learning** | *Springer LNEE, Vol. 905, 2022*

- Designed and implemented a real-time vehicle detection system with dynamic signal adjustment based on live traffic density. Calibrated confidence thresholds for object detection under variable lighting conditions, addressing precision-recall tradeoffs in latency-sensitive environments.

## CERTIFICATIONS

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**AWS Certified: Solutions Architect Associate** | *Amazon Web Services*

**Microsoft Azure Cloud: 3x Certified** | *Microsoft Azure*