

# ARAVIND ATHIPATTU VEERARAGHAVAN

Software Engineer | Application Security | Cloud Services | IT Delivery

(765)-767-1327 | [aravind290996@gmail.com](mailto:aravind290996@gmail.com) | [linkedin.com/in/athipattu-aravind-258aba118](https://www.linkedin.com/in/athipattu-aravind-258aba118)

## PROFILE

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- IT delivery, project management, systems architecture, and AWS Cloud Services professional with 4+ years of experience.
- Proven ability to lead and execute complex projects concurrently, manage cross-functional teams, and deliver sustainable results.
- Key experience at Thermo Fisher Scientific focused on Application Development, Security Operations, Project Delivery, and Sustainability.
- Strong collaborative acumen and a track record of innovation and success.

## EXPERIENCE

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**Thermo Fisher Scientific, Bengaluru**

August 2018 - June 2022

Software Engineer II (Technical Lead)

- Co-architected a multi-tenant Audit Verification microservice on Blockchain - established its Security Acceptance.
- Led Connect-Platform's ISMS & QMS audits in 2021 and 2022, for ISO 27001 and ISO 9001 compliance.
- Integrated cross-platform identity features into a SAML SP Service, eliminating  $\approx 20K$  cross-origin API calls per day
- Architected the trickle migration of 8 million live documents in indexes from AWS CloudSearch to AWS OpenSearch, leading to a 60x performance gain while Searching.
- Secured legacy microservices from the Log4Shell and SpringShell vulnerabilities, avoiding potential cyberattacks.
- Designed and deployed hot swapping and dynamic scaling for legacy AWS services, reducing downtime incidents by 90% and improving cost efficiency by 40%.
- Mentored adoption of a dynamic AWS budgeting strategy, reducing infrastructure costs by 25%.
- Resolved multiple production security incidents and formalized AMI upgrade policy for vulnerability patching.

Software Engineer I

- Collaborated on re-architecting a User-Access Management microservice to multi-tenant architecture.
- Co-delivered a workflow-based microservice with three teams across the product life cycle, actively contributing to architectural and use-case discussions with technical lead.
- Delivered multiple configurable UI features in company-level open source component library, facilitating wider UI development standards adoption.
- Performed feasibility study on Search Service migration from AWS CloudSearch to OpenSearch to enhance search experience, prioritizing an epic.

**Symantec, Chennai**

January 2018 - July 2018

Software Development Intern

- Prototyped Licensing Data compression from Norton Servers to Antivirus Clients, reducing data usage by  $\approx 70\%$ .
- Designed and implemented user-friendly File Downloader prototype in Norton clients for file downloads.

## SKILLS

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<b>Non-Technical</b>	Efficient & Empathetic Leadership, Problem Solving, Effective Communication, Project Management
<b>Architecture</b>	Solutioning & System Design, Quality & Risk Management, Evaluating Emerging Technology
<b>Programming</b>	Java, JavaScript, TypeScript, SQL, Python
<b>Frameworks</b>	Google Guice, Docker, Junit, Spring, Selenium, SAFe
<b>AWS Resources</b>	Compute, Messaging, DynamoDB, RDS, QLDB, Cloudformation, Cloudwatch, StepFunctions, SWF, Open Search, CloudSearch, Secrets Manager, ElastiCache
<b>Tools</b>	Splunk, Datadog, Jenkins, GitHub, Linux
<b>Security Process</b>	ISMS, QMS, Incident Response, Vulnerability Assessment

## RECOGNITIONS AT THERMO FISHER SCIENTIFIC

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1. For leading the delivery of the Audit Verification Project, using Blockchain, in a first for the organization.
2. For my efforts towards mitigation of Log4Shell Vulnerability in Legacy microservices.
3. For playing a key role in delivering microservices, requiring collaboration across multiple time zones.

## EDUCATION

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<b>Purdue University</b> , West Lafayette, IN	December 2023
<i>Master of Science, Computer Science - Cybersecurity Specialization</i>	
<i>Coursework: Information Security, Cryptography, Security Analytics, Software Security, Network Security, Data Security and Privacy</i>	
<b>Amrita School of Engineering</b> , Coimbatore	August 2018
<i>Bachelor of Technology, Computer Science &amp; Engineering</i>	

## PROJECTS AT PURDUE

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- 1. Secure Copy Tool - Purdue Boilers Club Hackathon - Spring 2023**
  - a. A Linux-based tool to aid in transfer of files via network, with checksum verification.
  - b. Files are hashed, HMAC verified, and AES-256 encrypted using Libgcrypt library
- 2. Multiparty Computation in Algorand - Fall 2022**
  - a. A tool to facilitate secure information sharing through Smart Contracts in Algorand.
  - b. Acquired proficiency in MPC fundamentals during the project, enhancing expertise in privacy-preserving computing.
- 3. Network Policy Translation for Zero Trust Architectures - Summer 2023 & Fall 2023**
  - a. An interface to enable automated deployment of Security Policies in firewalls.
  - b. Translates inputs to compatible policies for various device types and deploys those policies.