DHARSAN DHANARAJ

AWS-Certified Cloud Technical Application Support Engineer

Visa Status: Singapore EP Holder | Opportunity card holder | Open to Global Relocation

+65 8650 8073 / +91 7010061193 | dharsandhanaraj25@gmail.com

LinkedIn: linkedin.com/in/dharsan-dhanaraj-b048b3227

Portfolio: dharsandhanaraj.click

AWS-Certified Cloud Technical Application Support with over 9 years of specialized experience in airline IT and AI-powered operations, leveraging LLM models and intelligent automations to deliver **80% revenue growth** and **50% faster incident resolution** through innovative cloud solutions, microservices, and process automation. Proficient in managing IT operations, AWS infrastructure, and advanced incident troubleshooting, with a proven track record of crisis leadership and cross-functional collaboration to ensure system reliability and operational efficiency.

What truly drives me is the **challenge of solving high-impact problems under pressure** and ensuring that behind every system there's a reliable experience for the people who depend on it. I'm now looking to take this mindset global to join a team where **problem-solving, reliability, and operational ownership** are valued, and where I can continue to contribute, learn, and evolve in the cloud and support engineering space.

KEY HIGHLIGHTS

- **Global Incident Commander:** Led recovery for a Sev1 outage affecting airline booking systems across regions. Coordinated live triage with infra, app, and vendor teams, issued real-time status updates to C-suite, and implemented monitoring enhancements post-recovery, resulting in 40% faster resolution and zero SLA breach.
- **Enhanced Observability & Proactive Monitoring**: Implemented Splunk, CloudWatch, Datadog, and Dynatrace across 100+ applications, reducing incident detection time by up to 80%, cutting resolution time by 50%, and preventing hundreds of potential outages through proactive monitoring setups.
- **Payment Automation & Revenue Boost:** Engineered automated payment capture for MPGS, Adyen, and Worldpay using Java, Selenium, and Node.js, improved transaction success rate, and boosted booking revenue by 80%.
- **Customer-Centric Automation:** Built a serverless email retry system with Node.js on AWS, enhancing post-booking communication and increasing operational efficiency by 30%.
- **Process Ownership & Governance:** Introduced unified incident prioritization and escalation SOPs across APAC, halving triage time and improving trust with faster, clearer responses

PROFESSIONAL EXPERIENCE

Tata Consultancy Services, Singapore Airlines

Senior Technical Application Support Engineer, Singapore | January 2023 – Present

- **Keeping Critical Systems Running:** Lead a global support team of 11 engineers to ensure Optimal uptime for high-traffic airline platforms like booking, airport operations, and check-in systems supporting 10,000+ daily transactions across 20+ global locations.
- **Streamlined Major Incident Response**: Designed and implemented incident management protocols for reservation systems and led cross-regional triage during a critical global outage, restoring services 80% faster, reducing average downtime by 20%, and achieving 99% SLA adherence while providing real-time updates to business leaders.
- **Transformed Incident Prioritization**: Designed and implemented workflows that reduced mean time to resolution by 50%, enabling faster recovery for passenger-critical applications.
- **Drove Long-Term System Fixes**: Identified trends across recurring incidents and worked closely with engineering teams to deploy permanent fixes, increasing system stability by 40%.
- **Global IT Alignment & Process Optimization:** Led strategic collaboration with global stakeholders to align IT support with organizational goals, implementing ITIL-based processes and automation scripts (including MySQL and DynamoDB roll forward/rollback for CRUD operations), enhancing escalation efficiency by 60% and achieving 100% SLA compliance.

TECHNICAL SKILLS

- **Development & Automation:** Java, Search Processing Language (SPL), Node.js, React.js, Spring, Selenium, HTML, XML, CSS, MCP, Rest API, Soap API, GraphQL API, Kafka, PowerShell, YML
- **Cloud Technologies:** Amazon Web Services (AWS) - EC2, S3, Route 53, Aurora, VPC, CloudFront, SQS, SNS, SES, Lambda, API Gateway, ACM, CloudWatch, Docker, Kubernetes, ECR, EKS
- **Databases:** SQL (MySQL), NoSQL (Dynamo DB)
- **Monitoring & Analytics:** Splunk, Dynatrace, Datadog, Glass box, Quantum Metrics, Akamai, CloudWatch, Argo CD, Tibco Mashery, Hygraph Headless CMS, Postman, Bruno
- **DevOps Tools:** ServiceNow, JIRA, Confluence, GitHub, Terraform, Jenkins
- **Networking:** TCP/IP, Firewalls, Routers, AWS Transit Gateway, VPC Peering, VPN, Subnets, Security groups, NACLs, Direct Connect, AWS Certificate Manager, VPC Security, Public-Private Key Cryptography
- **AI & Intelligent Automation**: GPT Models, Claude AI, GitHub Copilot, LLM Integration, MCP Servers, AI-assisted Data Extraction, Conversational AI APIs

CERTIFICATIONS

- AWS Solutions Architect Associate
- AWS Certified Cloud Practitioner
- Professional Scrum Master (PSM 1)
- Splunk Core Certified User

Skills Snapshot

- Cloud & Infrastructure Management
- AI-Driven Operations & Automation
- LLM Integration & Intelligent Systems

- **Change Management & Risk Mitigation**: As a Change Advisory Board member, reviewed and approved enterprise-level changes, ensuring zero critical deployment failures and minimizing risks through metrics-driven trend analysis.
- **Payment Gateway Integration:** Successfully integrated 3DS and non-3DS flows with payment gateways for secure transactions by improving the stability in real-time booking systems.
- **Resilience Validation:** Led chaos-engineering experiments with **AWS FIS**, simulating EC2 termination and AZ outages; confirmed **99.99 % SLO** while consuming less than 0.1 % monthly error budget and cut MTTR by 30 % via automated rollback.

Tata Consultancy Services, Singapore Airlines
Technical Application Support Engineer, Singapore | April 2019 – December 2022
- **Enhanced Observing Efficiency**: Configured dashboards to automate data extraction for around 50 microservice applications, reducing false positive alerts by 80% (from 600 to 180 monthly), saving around 20 hours weekly in manual monitoring.
- **Improved Customer Experience:** Built a Node.js-based retry mechanism on AWS EC2 and Aurora SQL DB for failed email notifications, decreasing customer complaints by 30% for ticketing confirmations.
- **Ensured System Stability:** Executed patch management for critical systems, resolving 90% of JIRA tickets within 4 hours, maintaining 99% system availability during peak travel seasons.
- **Akamai CDN & Security Optimization**: Optimized Akamai CDN & WAF security rules by configuring custom policies, IP blocking, and fraud protection mechanisms, safeguarding the Singapore Airlines website against malicious traffic while ensuring reliable, high-performance content delivery
- **Enhanced Vendor Synergy**: Coordinated with Amadeus and payment gateway providers to optimize transaction flows, increasing successful booking completions by 20% and reducing errors by 15%.

Tata Consultancy Services, Singapore Airlines
System Engineer, India | June 2016 - March 2019
- **Hands-on Problem Solving:** Investigated and resolved airline booking and payment issues by analysing logs, understanding system behaviour, and bridging business and technical needs.
- **Lightweight Automation:** Developed shell scripts to streamline log analysis, reduce manual efforts, and speed up root-cause identification.
- **Secure Authentication:** Created a Git shell script using public-private key cryptography for secure server authentication, eliminating manual credential management

KEY PROJECT CONTRIBUTIONS
- **Enterprise Scrutinize Implementation**: Implemented Splunk and Dynatrace for SaaS-like reliability, reducing incident detection by **80%**
- **Email Retry Automation System**: Engineered a Node.js application with email failure detection and retry mechanisms, decreasing customer complaints by **30%**.
- **Payment Capture Automation System**: Led automation development using Java & Selenium. Coordinated with business and DevOps teams across regions, aligning data capture logic with financial audits, increasing captured revenue by **80%**.
- **AI-Powered Reporting Automation**: Leveraged GitHub Copilot in VS Code to auto-generate queries from databases and Splunk dashboards. Integrated MCP servers to extract Jira and Confluence data, automating weekly booking and issue summary reports. Reduced reporting time by **75%**, improved accuracy, and ensured consistent stakeholder updates.
- **AWS Three-Tier Static Website Hosting**: Architected a cost-efficient website using S3, CloudFront, Route 53, Lambda, with DynamoDB, achieving **40%** cost reduction.
- **Secure Secrets Management & Approval System:** Developed a Node.js & Express-based application featuring AES-256-CBC encryption, role-based access control, and session-based audit logging. Built RESTful APIs for file uploads, approvals, and notifications. Containerized with Docker, deployed via Amazon ECR to an EKS cluster with node groups and add-ons, ensuring enterprise-grade security for Kubernetes secrets management.

- Enterprise Architecture & Digital Transformation
- Project & Operations Management
- Incident, Problem & Root cause Analysis
- Monitoring, SLA Compliance & Alert Optimization
- 24/7 Production System & On call
- System Troubleshooting
- Booking & Payment Optimization
- Networking & Connectivity Troubleshooting
- Customer Support & Enhancements
- Stakeholder & Risk Assessments
- Mentoring & Team Development
- Decision Making & Strategic Thinking
- Adaptability, Cross-Functional & Crisis Leadership
- Escalation Management
- Strategic Prioritization
- Conflict Resolution

LEADERSHIP EXPERIENCE
- Mentorship Impact Lead
- Driving Change & Resilience
- Vice President of Education, International Tamil Toastmasters Club, Singapore

DELIVERY METHODOLOGIES
- Agile (Scrum)
- Waterfall

EDUCATION
- **Bachelor of Electrical and Electronics Engineering,** *Bannari Amman Institute of Technology (Anna University) | 2012 – 2016 | CGPA: 8.48*

PERSONAL DETAILS
- Address: Singapore 521299
- Nationality: Indian

ACCOLADES & RECOGNITION
- Customer Delight Award for Exemplary Client Satisfaction
- Mountain Mover Award for Exceptional Teamwork
- Night Owl Award for Outstanding Stakeholder Support
- Best Innovative Thinking Award
- Best New Joiner Award