

ADHITHYAN AJITH

AI Architect & Engineer • Technical Business Analyst • Data & Observability

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PROFILE

AI architect, engineer and technical business analyst who designs and builds production systems end to end — from requirements and data models through code, cloud infrastructure and monitoring. As Head of AI Architecture & Research Analysis at Ozler Care Solutions, I lead the architecture of a six-product compliance platform for aged care and NDIS providers on Azure, including agentic AI with human-in-the-loop governance. At Helloworld Travel Limited (ASX: HLO) I worked across business analysis, software development, data engineering and Dynatrace observability for an estate of ~100 hosts and 11,000+ monitored entities. I also build and ship independent AI systems — multi-agent due-diligence analysis, retrieval-grounded search over clinical policy, real-time computer vision — and contribute to applied research on LLM evaluation and model routing at Deakin University's Applied AI Institute (A²I²). I write clear documentation, choose the simplest architecture that works, and care about systems that are auditable and honest about their limits.

SKILLS

Business & Systems Analysis: Requirements elicitation, user stories and acceptance criteria, functional and technical specifications, process and workflow design, solution validation and UAT, stakeholder engagement, Agile/Scrum, Jira, Confluence

Architecture & Design: Solution architecture specifications, target-state and data-flow design, architecture decision records and trade-off analysis, event-driven and outbox patterns, multi-tenant design, Mermaid and C4-style diagramming

AI & Machine Learning: LLM applications (Claude, OpenAI, Gemini), agentic and multi-agent systems, Retrieval-Augmented Generation and vector search, prompt engineering, evaluation (faithfulness gates, metamorphic testing, LLM-as-judge), model routing, human-in-the-loop controls; computer vision (detection, tracking, anomaly detection); Scikit-learn, XGBoost, PyTorch, TensorFlow, NLP, forecasting

Software Engineering: Python, TypeScript/JavaScript, C#, SQL, R, Bash; Next.js, React, React Native (Expo), NestJS, Node.js, Fastify, FastAPI, Celery, Blazor/MudBlazor, Prisma, jQuery, Three.js/WebGL; Contentful CMS; Turborepo/pnpm and npm-workspace monorepos; testing, refactoring, code review

Data Engineering & Analytics: Data modelling (conceptual, logical, dimensional), ETL and pipelines, metrics and business logic in code, dataset curation, Pandas/NumPy, Power BI, GA4, Tableau, statistical modelling, A/B testing, causal inference, automated reporting (Python-generated PowerPoint)

Observability: Dynatrace (OneAgent, distributed tracing, RUM, synthetic monitoring, SLOs, Davis AI, dashboards, alerting, custom metrics, Settings 2.0 / API configuration), log analytics, Azure Application Insights, incident root-cause analysis

Cloud, DevOps & Security: Azure (AKS / Container Apps, PostgreSQL Flexible Server, Redis, Service Bus, Blob Storage, Front Door + WAF, AD B2C, Key Vault, App Insights), AWS (ap-southeast-2, S3, Lambda), Docker, Terraform, GitHub Actions CI/CD, OAuth 2.0 + PKCE, MFA, RBAC, Row-Level Security, audit logging

Data Stores & Integration: PostgreSQL, MS SQL Server, MySQL, Supabase, Redis, MongoDB, BigQuery; REST, SOAP/XML, JSON; GDS (Amadeus, Sabre, Travelport), Tourplan (HostConnect, WebConnect), SiteMinder, 8x8 VCC, Zerodha Kite Connect, WHOOP API

Languages: English, Malayalam, Tamil

PROFESSIONAL EXPERIENCE

Head of AI Architecture & Research Analysis

Ozler Care Solutions (Ozler Tech Pty Ltd) • Melbourne • Feb 2026 – Present

Australian RegTech company building a compliance, training and workforce-credentialing platform for aged care and NDIS providers — a regulated sector handling sensitive personal and incident data.

- **Solution Architecture:** Authored the platform's Solution Architecture Specification (v2.2, 79 pages) — system context, application architecture, event-outbox data flows, ER model, OAuth 2.0 + PKCE + MFA sequence and Azure deployment topology across ten diagrams, with a documented trade-off for every major decision, revised from a formal technical review.
- **Platform Engineering:** Lead the build of a Turborepo/pnpm monorepo — NestJS services, Next.js 15 / React 19 web, React Native (Expo) mobile, PostgreSQL 16 with Row-Level Security, Redis, Service Bus and Blob Storage — provisioned with Terraform and shipped through GitHub Actions CI/CD on Azure (Australia East/Southeast).
- **Agentic AI with Governance:** Designed AI-assisted serious-incident (SIRS) reporting and policy generation: retrieval-grounded LLM workflows over regulatory sources, human review before anything reaches a regulator, versioned prompts, and evaluation and monitoring — a reusable guardrail pattern every AI feature inherits.
- **Data Architecture:** Modelled workers, credentials, training, facilities, allocations and incidents; designed the event-driven credential lifecycle (training-to-credential issuance, automated expiry sweeps) and a facility-side compliance portal showing the credentials of allocated staff.
- **Security & Identity:** Azure AD B2C with OAuth 2.0 + PKCE + MFA, role-based access, tenant isolation through Row-Level Security, Key Vault secrets, Front Door + WAF and end-to-end audit trails.

- **Research Analysis & Strategy:** Analysed aged care and NDIS regulatory obligations and the provider market to define a six-product ecosystem (Skill2Care, OzlerShield, OzlerSIRS, OzlerReady, OzlerPolicy, OzlerPass), sequence the launch, and model infrastructure cost (~\$1.25k/month production).
- **Technical Leadership:** Run architecture and design reviews with an external technical reviewer and the development team; set engineering standards and the development workflow.

Technical Business Analyst & Product Engineer

Helloworld Travel Limited (ASX: HLO) • South Melbourne • Jan 2026 – Jun 2026

Wholesale Business Systems team at Australia's largest integrated travel distribution company — two production platforms (PHP/Apache wholesale and .NET/IIS air-ticketing) serving a multi-brand portfolio.

- **Business Analysis & Requirements:** Translated business needs into technical requirements, specifications, user stories and documentation; analysed user needs and system requirements; worked with developers, data teams and stakeholders and validated that delivered solutions met business needs. Technical BA on the Tourplan WebConnect implementation for Helloworld's inbound brands, mapping confirmed design decisions to configuration, labels and assets; authored the 8x8 VCC webchat v2 scope and implemented a customer-facing chatbot on 8x8.
- **Solution & Systems Design:** Helped design systems, integrations and reporting solutions; planned system architecture and workflows; chose technologies, frameworks and tools — across GDS platforms (Amadeus, Sabre, Travelport), Tourplan, SiteMinder, REST and SOAP/XML services and MS SQL.
- **Software Development:** Developed applications and features, writing clean, efficient and maintainable code to coding standards and best practice; updated software to fix defects and add features, and refactored legacy code to improve quality, performance and scalability. Resolved a critical jQuery defect in the IRES booking system that broke supplier rate codes containing forward slashes; built pages on a Contentful/Next.js CMS; built LogLens, a high-performance Nginx/HAProxy log parser (Web Worker architecture) adopted for daily use by the team.
- **Data Engineering & Analytics:** Built clean, reliable datasets for analysts, transformed raw data into usable models, defined metrics and business logic in code, and maintained pipelines and documentation. Built a Power BI CEO dashboard for MyWay Travel & Events on Tourplan booking, product and inventory data and diagnosed why ticket counts were inflated (no product-type field in the source export), escalating to the vendor; built GA4 analytics pipelines with automated Python-generated executive reports; authored a strategic financial analysis of ASX:HLO (DCF, segment revenue) for board presentation.
- **Observability Engineering (Dynatrace):** Set up monitoring for applications, services and infrastructure; configured dashboards, alerts, custom metrics and SLOs; instrumented code for tracing and performance; automated monitoring configuration through the Dynatrace API and Settings 2.0, and integrated it with CI/CD, cloud platforms and alerting tools so coverage scales with the estate.
- **Performance & Incident Analysis:** Monitored application and infrastructure health, analysed metrics, logs and traces with Davis AI insights to find bottlenecks and anomalies, and investigated incidents through distributed tracing and performance data with development and operations teams, giving actionable recommendations to prevent recurrence — including tracing ~17,000 recurring booking-integration errors to their root cause and a SiteMinder booking-delivery failure. Cut annual Dynatrace costs by 16% in the first week through a configuration audit.
- **Observability Strategy & Reporting:** Authored an observability assessment of the full estate (~100 hosts, 11,000+ entities, two production platforms) for the CTO — eight prioritised findings and a 0–180-day remediation plan; produced performance reports and KPIs for stakeholders and documented monitoring strategy, configuration and best practice.

Business Data Analyst & AI/Automation Developer

Zenuca Technologies (Client: Barton Care) • Melbourne • Jan 2024 – May 2025

Data, automation and software delivery for Barton Care, a healthcare and personal care staffing provider.

- **StaffGrid:** Led design and development of a healthcare staffing system in Blazor WebAssembly and MudBlazor — role-based dashboards for super-admin, corporate, facility and agency users, and tier-based shift broadcasting to agencies; produced architecture documentation and ran design sessions with an overseas development team.
- **Analytics & Forecasting:** Built Power BI dashboards for staff allocation, coverage and compliance; forecast demand for healthcare workers (15% fewer staffing shortages); applied NLP to client feedback, informing a 30% service-quality improvement.
- **Automation & Integration:** Power Platform workflow automations cut manual effort by 20%; custom API integrations connected internal and third-party systems; maintained compliance, certification and licence records.

Research Intern – AI & Data Science

Applied Artificial Intelligence Institute (A²I²), Deakin University • Burwood • Sep 2024 – Dec 2024

- **YouSay-WeSay:** Processed multi-country survey data and built Python (matplotlib, seaborn) and JavaScript visualisations on global perceptions of the 2024 US election; research featured in the London School of Economics USAPP blog.

Freelance Developer

Self-employed • Melbourne • 2023 – Present

- **Web & AI Builds:** Websites and applications for Neviads, Luminatus and Deakin Mallus (including immersive Three.js/WebGL concepts) and adhi.com.au, a portfolio with an in-browser AI assistant.

Data Analyst Trainee (Internship)

Tata Consultancy Services • Remote • Oct 2023 – Dec 2023

Office Coordinator

Regis Aged Care • Melbourne • Jul 2023 – Dec 2023

Associate Software Engineer (Part-time)

Visualyze.AI • Trivandrum, India (Hybrid) • Feb 2022 – Jan 2024

- **Engineering:** RPA automations cut data processing time by 50%; Python and C# pipelines improved throughput by 40%; code reviews reduced post-release defects by 20%.

PROJECTS

Meridian | *TypeScript, Node 22, Fastify, Prisma, React/Vite, Terraform (AWS)* — SaaS platform for healthcare staffing and NDIS care delivery with provider, agency and hybrid modes on one data model. Built SCHADS and Nurses award-interpretation engines, compliance-gated shift matching with explainable scoring and stated exclusion reasons, rate-card billing and NDIS bulk-claim generation, all unit-tested against hand-computed dollar amounts; JWT auth, tenant isolation, RBAC and append-only audit logs. Foundation complete; award rates and external integrations (PRODA, STP, screening) are interface stubs pending go-live.

Enterprise AI Due Diligence Agent | *Python, multi-agent* — Turns deal documents into evidence-backed reports. Four working agents: extraction, financial analysis, deterministic cross-document contradiction detection (no LLM in the detection path) and a risk engine using a transparent likelihood × impact model; every finding cites its source.

Healthcare Knowledge Assistant | *RAG, Python, React, RBAC* — AI search over hospital and aged-care policies, procedures and clinical guidelines, with role-based access, source citations and version metadata; proof of concept built, designed to Australian Privacy Principles.

CurricuLens | *Next.js, FastAPI, Celery, Supabase, Claude + Gemini* — AI curriculum platform for the Victorian Curriculum: conversational tutor, spaced repetition, study planner with exam scheduling and teacher analytics dashboard; hybrid model routing for quality vs cost, and mandatory human review of all AI-generated content.

Industrial Vision App | *Python, local inference, Windows* — Real-time analysis of factory video as it plays: object detection with persistent tracking IDs, visual and behavioural anomaly flags and a live dashboard of genuine metrics; models and thresholds configurable, and the video source swappable for live cameras.

SkillMate | *AI, data analytics* — Platform for migration and study-abroad businesses combining migration intelligence, personalised visa-pathway forecasting that models real EOI queue dynamics rather than points alone, and AI guidance; includes client management and enquiry conversion tools for agents and education consultants.

Clautra | *Python, Claude, Zerodha Kite Connect* — Claude-powered options-selling agent for Nifty and BankNifty. Phase 1 complete: options-chain and Greeks pipeline, OI analysis, event calendar and a two-layer filter (8 quantitative, 6 technical checks), paper-tested to block trades correctly in high-volatility conditions.

StaffGrid | *Blazor WebAssembly, MudBlazor* — Healthcare staffing management system with dashboards for four roles and tier-based shift broadcasting to agencies.

Olympian Protocol OS | *Next.js 15, Supabase, WHOOP OAuth* — Personal fitness coaching app built around a 28-week performance plan, using WHOOP recovery data.

RESEARCH & WRITING

- **Silent failures of oracle-free LLM checks:** first-author paper in preparation measuring how often wrong LLM outputs pass property and metamorphic checks, compared against exact oracles across a ladder of open-weight models.
- **LLM routing under drift:** contributor to an A²I² research programme (Deakin University) on routing tasks to the cheapest sufficient model under model drift and sparse feedback.
- **Writing:** essays on AI agent reliability, benchmark methodology and human-machine cognition on Substack and Medium, including “The Metric Trap” on why agent benchmarks mismeasure production reliability.

EDUCATION & LEADERSHIP

Bachelor of Computer Science (Data Science) — Distinction (WAM 77)

Deakin University, Burwood • Jul 2022 – Jul 2025

- **Deakin University:** Generative AI Advisory Board Member; AI Research Team Member, A²I²; Student Ambassador.
- **Co-Founder, Deakin Mallus (Malayali Association of Deakin Inc.):** incorporated association running ARMADHAM, an annual Onam festival that sold out with 1,000+ attendees in 2025.

Certifications: Python for Data Science and AI (IBM) | Introduction to AI (IBM) | Generative AI and Prompt Engineering | Technical Support Fundamentals (Google) | Power BI Job Simulation (PwC) | Data Visualisation Job Simulation (TCS)

Referees available on request