SAI VANAMALI (SIMS)

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Subclass 485 visa (full working rights) ◇ Available immediately ◇ Portfolio ◇ LinkedIn ◇ GitHub

Data and AI engineer who builds end to end: tested pipelines and data models with provenance, ML and LLM features measured against honest baselines, and the full-stack products people actually use them through.

EXPERIENCE

SilverOak Apps
Machine Learning Intern, Melbourne VIC — *March 2025 – December 2025*

- Cut question-classification latency 96.7% (6s to 0.2s) by replacing a per-request LLM call with an embedding-based semantic router.
- Designed a Go price-resolution API over market data, serving sub-50ms in production: a 7-tier fallback, automatic non-USD currency conversion, token auth and unit tests.
- Built a TypeScript ingestion and parsing service on an AWS cron schedule that integrates content from multiple external sources into the product, replacing manual collection.

Freelance Web Developer
Independent Contract, healthcare client — *December 2025 – Present*

- Sole developer and client contact for drrvcancercare.com, the patient-facing site of a surgical oncologist (two hospitals, 200,000+ Instagram audience); Next.js / TypeScript, zero downtime since launch.
- Built structured patient intake (booking by department and time; topic-tagged questions feeding the doctor's video answers) with explicit consent capture for health data; accessibility gated in CI (axe-core 14 to 0).

Zelo Agents
Co-Founder & Developer, Melbourne VIC — *July 2025 – March 2026*

- Led a paying client end to end: rebuilt a gym's site in Next.js with trial-booking flows and tracked visits to bookings; 500 to 9,000+ monthly visits in 8 months, +35% trial bookings (client-reported).

JB Hi-Fi
Brand Specialist (Microsoft & Meta, via Retail Safari), then IT & Networking Sales — *July 2025 – Present*

- Sales and problem-solving for 15–20+ customers a shift across Melbourne stores, exceeding KPIs; explaining the same technical trade-off differently to a first-time buyer and to an expert.

PROJECTS

Tab Debt (code) – TypeScript, React, Vercel AI SDK, Chrome on-device AI, Vitest
Browser extension with an AI agent that reviews your open tabs once a day and proposes a plan you approve.

- Rules first, then a bounded tool-using agent that can only propose; a separate executor is the only code that closes tabs. Runs on Chrome's built-in model or the user's own key.
- A 38-case labelled eval, including prompt-injection pages, fails the build on any injection leak, unsafe close or accuracy drop; unit and real-browser end-to-end tests.

Sea Anchor (live app · code) – Python, DuckDB SQL, Parquet, implicit ALS, FastAPI, React
Live map app predicting where each of 190k+ fishing vessels will fish next, avoiding protected areas.

- Bronze, Silver and Gold layers over 731 daily files (about 7 GB); 12 validation rules route failing rows to quarantine with a reason code, with row counts reported per layer; 54 unit tests.
- Implicit ALS on a temporal split with a leak check: Precision@10 of 0.081 vs 0.004 for a popularity baseline (20x), served through a 10-endpoint typed FastAPI.

Melbourne Footfall (code · Tableau dashboard) – SQL, dbt, DuckDB, Python, LightGBM, GitHub Actions, Tableau
Forecasts hourly foot traffic for every Melbourne CBD precinct and shows where and when real crowds miss the forecast.

- ETL from 7 sources into a documented precinct-hour reporting mart with 47 dbt tests, run daily on GitHub Actions with a source-freshness gate and an issue opened automatically on failure.
- LightGBM beats a seasonal-naive baseline (MASE 0.87 vs 0.98 over 89 rolling-origin folds), feeding Tableau directly.

unattended (code) – TypeScript, Node, simulation testing, Vitest, GitHub Actions
Booking engine for self-service rentals (smart locks, ID checks, card holds) with a harness that simulates a year of customers.

- Seven business invariants checked after every simulated event took a year of 10,000 bookings from 4,335 incidents to zero and hands-off bookings from 38% to 87%; each fix shipped with a regression test, 20 seeds checked in CI.

MyPowerPlant (live · code) – PostgreSQL, FastAPI, React, AWS, Terraform
Team project, Monash Industry Expo finalist: helps Victorian households choose a virtual power plant plan.

- Every plan term carries its source and last-verified date, every number shown is labelled with its provenance, and personal-data tables were dropped after a security review.

SKILLS

Languages	Python, SQL, TypeScript, Go, JavaScript
Data engineering	ETL/ELT, dbt, DuckDB, Parquet, medallion architecture, data-quality tests, Tableau
ML & AI	pandas, scikit-learn, LightGBM, implicit ALS, embeddings, LLM agents and evals, OpenCV
Web & cloud	React, Next.js, FastAPI, PostgreSQL, AWS (Lambda, S3), Terraform, Docker, GitHub Actions

EDUCATION

Master of Data Science, Monash University, Melbourne — March 2025 – November 2026
Bachelor of Technology, Information Technology, JNTU Kakinada — 2020 – 2024