

JANNET AKANKSHA EKKAK

GenAI Applications Engineer · Agentic Systems · Google Cloud & NVIDIA-Accelerated ML

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PROFESSIONAL SUMMARY

AI/ML engineer who ships production agentic systems end to end — architecture, learning loop, cloud deployment and live operations. Author of a **patent-pending multi-agent trading AI** (33K LOC, 166-test suite, running continuously on Google Cloud) and of multi-agent assistants built on Google ADK, MCP and AlloyDB. Brings **4+ years leading enterprise QA automation at Deloitte** to the problem most AI teams now face — **evaluating and monitoring agents**, not just building them: systems here refuse to act on data they cannot verify, and no substituted default passes without a warning. **Rank 1** PGP in AI/ML (UT Austin McCombs & Great Lakes). Works AI-native and deliberately lean — that platform was designed, built and is operated from a single 16 GB laptop, and a **cuDF/RAPIDS rewrite** cut its validation pipeline **~6× on an NVIDIA T4**. Built while a full-time family carer.

TECHNICAL SKILLS

GenAI & Agents	Google ADK, Model Context Protocol (MCP), Agent2Agent (A2A) SDK, Vertex AI, Gemini, Imagen, OpenServ SDK, multi-agent orchestration, prompt engineering, RAG & vector search, LangChain, Hugging Face
ML & Quant	scikit-learn, TensorFlow, Keras, PyTorch, CatBoost, Optuna (TPE), contextual bandits, CPCV / Deflated Sharpe / PBO / FDR overfitting gates, conformal prediction, time-series forecasting, NLP & sentiment analysis, computer vision (ResNet, Fast R-CNN)
Cloud & Data	GCP — Cloud Run, Cloud Functions, Compute Engine, BigQuery (+ vector search & Conversational Analytics), AlloyDB & pgvector, Cloud SQL, Firestore, Pub/Sub, Cloud Scheduler, Cloud Build, Artifact Registry, Secret Manager, Vertex AI MLOps; AWS — S3, EC2, RDS, SageMaker, Textract, Comprehend; Cloudflare Workers
Engineering	Python, SQL, TypeScript, JavaScript; FastAPI, Flask, Streamlit, Django, React, Next.js; Docker, Kubernetes, Git, Jenkins, GitHub Actions, systemd, pytest, Selenium; REST & WebSocket API integration
GPU & Acceleration	NVIDIA cuDF / RAPIDS (cudf.pandas), CUDA, Vertex AI GPU notebooks, T4 CPU-vs-GPU benchmarking, GPU-native pipeline rewrites
Analytics	pandas, NumPy, SciPy, Matplotlib, Seaborn, Tableau, Power BI, hypothesis testing, A/B testing, experiment design

FLAGSHIP PROJECT

Smart Money Trading (SMT) — Explainable Multi-Agent Trading AI · Sole architect & engineer

2026 – Present

Patent pending — Indian provisional application No. 202631090789 (filed Jul 2026)

Live: [smt-weex-trading-bot.jannet-ekka.workers.dev](#) · Hackathon build on Cloud Run: [smt-world](#) · Code: [github.com/JannetEkka/smt-apac](#)

- Designed and built a **three-layer autonomous trading agent** — quant base, learning loop and explanation layer — trading 8 crypto perpetual-futures pairs across 4 strategy horizons; **33,000 LOC over 153 Python modules with a 166-test suite**.
- Architected a **6-persona committee** (order-flow, technical, whale/on-chain, sentiment, regime) aggregated by a learned **Judge** with quorum-renormalised conviction, so a dead data feed can never silently strand a decision threshold.
- Built the learning loop end to end — Optuna/TPE optimiser, regime-aware **contextual bandit** for sizing, replay and reward shaping, and a weekly refit that ships only through a **CPCV + Deflated-Sharpe + PBO + FDR overfitting gate**; a per-pair P(up-in-4h) forecaster validated on non-overlapping windows reached **AUC 0.723** on BTC, with gate-failing pairs auto-held in shadow.
- Accelerated strategy validation with **NVIDIA cuDF (cudf.pandas, zero code change)** on a Vertex AI GPU notebook — a 2.5M-row CPCV pipeline dropped from ~24s to **3.9s (~6×)** on a T4; the front end is a Three.js/WebGL world served from Cloudflare Workers.
- Engineered a **BigQuery data lake of 173K decisions and 447K klines** with embeddings and vector search for pattern mining, plus a conversational analytics agent over a sanitised public view.
- Operate it live on GCP — Compute Engine under systemd with watchdog and auto-restart, Cloud Run and Cloud Functions services, Secret Manager, a Streamlit dashboard and a Cloudflare-hosted user-facing UI; every trade ships a faithful ≤500-character "why" verified by a counterfactual faithfulness check, and a **no-silent-fallback rule** (any substituted default raises a warning and a liveness flag) that surfaced four multi-week data-integrity bugs.

Stack: Python, Optuna, scikit-learn, CatBoost, BigQuery, Vertex AI & Gemini, Cloud Run, Cloud Functions, Secret Manager, Streamlit, Cloudflare Workers, Docker, pytest, GitHub Actions

SELECTED AI / ML PROJECTS

SmartDesk — Multi-Agent Productivity Assistant · Google Cloud Gen AI Academy capstone

2026

[github.com/JannetEkka/smartdesk](#)

- Built a root **ADK orchestrator** routing to specialised sub-agents — InboxAgent (Gmail via MCP), PlannerAgent (Calendar via MCP), DataAgent (AlloyDB vector search as a personal CRM) and a SequentialAgent response formatter.
- Deployed as a containerised service on **Cloud Run** with Gemini 2.5 Flash; extended the lab work with a Graceful429Plugin giving ADK tools a clean fallback under rate limiting.

VerseCanvas — AI Poetry-to-Art Generation Platform

2025

[github.com/JannetEkka/versecanvas](#)

- Engineered a **multi-stage generative pipeline** — semantic poem analysis with Gemini 2.0 → automated prompt engineering → image synthesis with **Imagen 3.0 on Vertex AI** → hybrid editing and text overlay (2,600 LOC across 6 modules).
- Extracts themes, mood, visual elements and narrative arc beyond literal text; 6 languages, 6 art styles, tunable mood intensity and multiple interpretations per poem, shipped as a Streamlit app.

Smart Money Tracker — Multi-Agent Blockchain Analytics · Hackathon winner

2024

- Orchestrated multi-agent whale tracking across **Ethereum, Polygon and BNB Chain** with the OpenServ SDK, using Alchemy webhooks for sub-second transaction monitoring on Cloud Run.
- Built a confidence-scored detector for accumulation, distribution and coordinated movements with automated exchange-wallet exclusion via Moralis labelling; backed by Cloud SQL + pgvector, Firestore and Gemini analysis.

Applied ML Portfolio · 13 end-to-end projects (UT Austin McCombs PGP)

2024 – 2025

jannetekka.github.io/DSPProjects · github.com/JannetEkka/DSPProjects

- Automotive surveillance (capstone):** ResNet50 make/model/year classification at 69.2% accuracy with Fast R-CNN detection over 16,185 images across 196 classes. **Customer churn:** 81.5% accuracy (Random Forest / Gradient Boosting). Also semiconductor yield prediction (591 sensor signals), SVHN digit and signal classification, financial-news sentiment with Mistral-7B embeddings, SQL business analytics, and K-Means + PCA-SVM vehicle segmentation.

PROFESSIONAL EXPERIENCE

Smart Money Trading (SMT) — Founder & Sole Engineer

2026 – Present

- Design, build and operate the patent-pending multi-agent trading platform detailed above — running continuously on Google Cloud under systemd with watchdog, auto-restart and per-decision audit logging.
- Own the full lifecycle solo: architecture, learning loop, evaluation gates, cloud deployment, incident response and cost control.

Independent AI Engineer — freelance & competitive builds

2024 – 2025

- Won Best DeFi Application** at the OpenServ × Hack2skill hackathon (runner-up, Best Website Application) with a multi-agent blockchain analytics platform tracking whale movements across three chains.
- Shipped VerseCanvas on Vertex AI, multi-agent assistants on Google **ADK / MCP / AlloyDB** deployed to Cloud Run, and the applied AI projects above.
- Delivered all of the above **while a full-time family carer**, alongside completing the PGP in AI/ML at Rank 1 and the Google Cloud Gen AI Academy.

Deloitte Consulting LLP — Test Automation Engineer (Analyst)

Aug 2019 – Jan 2023 · Bangalore

- Led a 6-member QA engineering team** delivering automated testing frameworks and enterprise data-processing solutions for Fortune 500 clients including AT&T Consumer Connect, Hewlett Packard Enterprise and The Dental Supply Company.
- Built Selenium and Katalon Studio automation components that **improved test execution efficiency by 83%**; Jenkins-based automated reporting cut manual analysis time by **75%**.
- Wrote Python analysis scripts and Tableau dashboards tracking quality metrics across **343 business components**, reducing test failures by 25%.
- Developed Python pipelines analysing **50,000+ SAP Hybris transactions** to isolate performance bottlenecks, and automated data validation for 10,000+ product configurations.

Tech: Selenium, Katalon Studio, Python, JavaScript, Jenkins, Salesforce, SAP Hybris, Tableau, JIRA, Git

AutoKorrekt — Lead Frontend Developer (EdTech startup MVP)

May 2024 – Jan 2025

- Engineered an interactive PDF processing system with coordinate-based text extraction, integrating **AWS Textract OCR** and Mistral models into an AI answer-evaluation workflow, and designed the ML data flow across S3, RDS and SageMaker.
- Built a bilingual (English/German) evaluation interface with real-time NLP feedback via Amazon Comprehend plus an analytics dashboard; scaled to **1,000+ concurrent submissions** and 100+ teacher sessions, cutting grading time 70% and lifting grading consistency 85%.

Tech: React, Next.js, TypeScript, Python, Django, AWS (EC2, S3, RDS, SageMaker, Textract, Comprehend)

Internship Studio — Machine Learning Intern

Jul 2024 – Aug 2024 · Remote

- Built a Random Forest model ($R^2 = 0.252$) predicting YouTube ad views from engagement metrics across a **15,000+ video dataset**, packaged for integration with business dashboards to inform ad-revenue optimisation.

EDUCATION

Post Graduate Program in Artificial Intelligence & Machine Learning

Feb 2024 – Feb 2025

Texas McCombs School of Business & Great Lakes Institute of Management — **GPA 4.09/5 · Rank 1 in batch**

Bachelor of Technology, Information Technology

2015 – 2019

Kalinga Institute of Industrial Technology (KIIT) University, Bhubaneswar — **CGPA 7.17/10**

ACHIEVEMENTS, RECOGNITION & CERTIFICATIONS

- Provisional patent filed** — India, App. No. 202631090789 (Jul 2026), covering the SMT multi-agent decision architecture.
- WEEX AI Wars I — #1 on the overall preliminary leaderboard** of 230+ teams and one of 37 finalists in the \$880K live AI trading competition; featured in **WEEX's official coverage** and two live AMAs.
- Winner, Best DeFi Application** — OpenServ × Hack2skill hackathon; runner-up, Best Website Application.
- Top 101 of 1,500+ teams** — Google Cloud Gen AI Academy APAC hackathon (Cohort 2), advanced to prototype refinement.
- 2 Spot Awards** and an **Applause Award** at Deloitte for project excellence (HPE Configure-Price-Quote).
- Google Cloud Gen AI Academy** — Completion, May 2025 (ID 2025H2S04GENAI-A01917); **Gen AI Academy APAC 2026** — Cohort 1 and Cohort 2 completions plus the Cohort 1 Hackathon.
- Gen AI Exchange Hackathon 2025** (Google Cloud & Hack2skill) — problem statement “Automating Test Case Generation with AI” · **Agentic AI Day · Asha AI Hackathon 2025** (JobsForHer Foundation).
- CPSAT** — Certified Professional Selenium Automation Testing, 2022. All credentials verifiable on [Credly](#) and [Google Skills](#).