

# Subhadip Mitra

*Engineering Leader & AI Systems Architect*

Singapore | [contact@subhadipmitra.com](mailto:contact@subhadipmitra.com)

LinkedIn: [linkedin.com/in/subhadip-mitra](https://linkedin.com/in/subhadip-mitra) | GitHub: [github.com/bassrehab](https://github.com/bassrehab)

*Last updated: December 25, 2025*

## Professional Summary

---

Senior Engineering Leader with 15+ years bridging AI research and enterprise delivery. Leading Google Cloud's Data & Analytics practice for Southeast Asia while driving innovations in LLM inference and multi-agent systems. Track record as "Player-Coach" - managing regional portfolios while architecting patented frameworks (UPIR, ARTEMIS, FTCS).

## Professional Experience

---

**Google Cloud - Professional Services Organization: Head of Data & Analytics, Southeast Asia — Site Lead, PSO Southeast Asia** *January 2021 – Present*

Built Google Cloud's Data Analytics practice across Southeast Asia. Dual role as Site Lead overseeing regional delivery and technical innovation lead on [delta](#) team.

- Built D&A practice from 0 to 1 across 6 countries; direct \$XXM+ portfolio with 97% CSAT
- Site Lead overseeing delivery governance across all 7 PSO practices in Southeast Asia
- Pioneered agentic AI adoption across 7 practices and 6 JAPAC sub-regions with SDKs, agent catalog, and governance frameworks
- Spearheaded rescue operations for at-risk enterprise accounts, recovering strategic customers
- Partner with Sales leadership on strategic pursuits; collaborate with Product Engineering on platform roadmap
- Published 5 technical disclosures (UPIR, FTCS, ARTEMIS, ETLC, CatchMe) on AI/distributed systems

**Standard Chartered Bank: Principal Engineer - Data & Analytics Transformation** *January 2019 – January 2021*

Led enterprise AI and data platform development serving 11 markets and 1200+ users.

- Delivered Self-Service ML Platform reducing model development from 6 months to 1 week
- Designed credit risk AI models improving accuracy by 15% with alternative data sources
- Modernized MarTech infrastructure driving 30% increase in customer acquisition

**Think Big Analytics (Teradata): Principal Data Engineer / Solution Architect** *January 2017 – January 2019*

Architected enterprise data solutions for Fortune 500 clients across APAC.

- Engineered 5 data lakes processing 1.2 PB/hour with 20% optimization
- Built real-time fraud detection reducing false positives by 60%

**Various Companies: Software Engineering & Technical Consulting** *January 2010 – January 2017*

Progressive roles in software development, systems integration, and consulting in financial services and algorithmic trading.

## Research & Open Source Engineering

---

### LLM Inference Efficiency

Speculative decoding, custom Triton kernels, KV-cache compression. 8.1x speedup, 88% peak bandwidth on A100.

GitHub: <https://github.com/bassrehab/speculative-decoding>

### AI Metacognition Toolkit

Activation-level detection of sandbagging and deception in LLMs. 90-96% accuracy with steering vectors.

PyPI: <https://pypi.org/project/ai-metacognition-toolkit/>

### UPIR - Distributed Systems Synthesis

Neuro-symbolic framework for automated distributed system generation. 274x speedup, 60% latency reduction.

[https://www.tdcommons.org/dpubs\\_series/8852/](https://www.tdcommons.org/dpubs_series/8852/)

### CatchMe - Intelligent Trust Engine

Agentic AI for enterprise trust decisions. APLS pattern learning + cascade routing. 86% cost reduction, sub-50ms latency. JAPAC Hackathon Winner.

## Publications & Technical Disclosures

---

### UPIR: Automated Synthesis and Verification of Distributed Systems

*Google, Technical Disclosure Commons, November 2025*

[https://www.tdcommons.org/dpubs\\_series/8852/](https://www.tdcommons.org/dpubs_series/8852/)

### ETLC: Context-First Data Processing for GenAI

*Google Cloud, May 2025*

[https://services.google.com/fh/files/blogs/etlc\\_full\\_paper.pdf](https://services.google.com/fh/files/blogs/etlc_full_paper.pdf)

### Field-Theoretic Context System (FTCS)

*Google, Technical Disclosure Commons, May 2025*

[https://www.tdcommons.org/dpubs\\_series/8022/](https://www.tdcommons.org/dpubs_series/8022/)

### ARTEMIS - Adaptive Multi-agent Debate Framework

*Google, Technical Disclosure Commons, January 2025*

[https://www.tdcommons.org/dpubs\\_series/7729/](https://www.tdcommons.org/dpubs_series/7729/)

### OConsent: Blockchain Privacy & Consent Protocol

*BITS Pilani / arXiv, December 2021*

<https://arxiv.org/abs/2201.01326>

## Education

---

MBA, Business Analytics

BITS Pilani

MTech, Software Systems

BITS Pilani

## Technical Skills

---

**Leadership:** Enterprise Architecture, Digital Transformation, AI & Data Strategy, C-Suite Advisory

**Data & AI:** Petabyte-Scale Platforms, Apache Spark/Kafka/Flink, Delta Lake, LLMs & Multi-Agent Systems, RAG & Vector Databases, PyTorch, Vertex AI

**Cloud & Engineering:** Google Cloud Platform, BigQuery, Python/SQL/Scala, Kubernetes, Distributed Systems