# **SAGUN GARG**

BLOGS: Startups | AI-ML | My Website

Tel: +65 83000962

Email: sagungargs@gmail.com
Professional: Linkedin | Twitter | Medium

#### PROFESSIONAL EXPERIENCE

**15+ YEARS** 

**Brief:** Global Innovation Director - Software Engineering & Enterprise Architecture [Wealth Banking, Digital Assets, AI/ML], 3 x CoFounder/CTO, 40 plus x Angel Investor, 4 x Startup Advisor, 13+yrs Serial Entrepreneur

# Bank Julius Baer. [Global Innovation Lab-Launchpad, AI/ML & Digital Assets]

Singapore, Sep '22 - till date

#### HQ: Global Innovation Director Technology & Engineering

- Software Engineering Director of Global Innovation Lab(6+ active countries globally) of Bank Julius Baer managing a tech budget of S\$1mn per annum (i.e Budget, Resource & Forecast planning of engineering (man days) across vendors & in-house.
- Using agile methodology to build POCs across global booking & advisory offices in Switzerland, Luxembourg, Dubai, Singapore and Hong Kong to develop wealth Banking use cases in Digital Assets, Capital Markets & wealth Banking.
- Strong recognition for 7 product(s) governance approvals for Target Architecture, Security Concept, NFRs, Solution Blueprint & Design with APAC and HQ- Zurich stakeholders based on engineering policies, compliance and legal approvals for Innovation products)
- Technical feasibility & MVP on the Future of Inheritance in Digital Assets space i.e Enterprise multi-sig custody setup for wealth clients.
- Implemented privacy engineering techniques for sensitive & critical data in wealth banking context in the technical domains of AI/ML(NLP, NLG, LLM, Stable Diffusion) and Bitcoin/Digital Assets.

# Regional HQ: CoE - Enterprise Software engineering APAC

- Proactively raising the quality bar of Software engineering talent through Open Source work, certifications & inhouse training & 10x engineer hiring (high quality full stack engineers)
- As a pilot engineering team helped to launch Azure Prod Cloud Platform by deploying Gen AI LLM(Open AI ChatGPT, Mixtral and Whisper- ASR), RAG & vector databases beta product(s) in Innovation Sandbox
- Early incubation of API Gateway as as self service platform for Enterprise hybrid of OnPrem & Azure Cloud
- APAC lead for Special TechX group for engineering innovations in the APAC region e.g. Developer Portal, API Catalog & Developer Workspace

# Regional HQ: CoE - Enterprise Architecture APAC

- Architected and created Innovation Sandbox on the hybrid setup of OnPrem & Azure Prod Cloud from the ground up for Singapore &
  Hong Kong to open up Beta Apps(POCs) to limited clients for early feedback/ validation of new technology platform offerings with
  legal, compliance, and policies from a regulatory standpoint. Leveraging FOSS(Free & Open Source)
- Act as a solution architect across the products deployed in Innovation Sandbox, setting the strategy for the architecture evolution towards a strategic target state when there is a need for scalability in enterprise scale (transfer and handover of a product to scale)

# Polymath AI Pte Ltd. [Oresearch.com, AI/ML DataOps/Catalog B2B platform]

Singapore, July '19 – Aug '22

# Co-founder, Chief Technology Officer

• Developed AI-SDK open-source live Data Ops platform with two pilot customers in Singapore & Hong Kong. This B2B platform for enterprises helps to streamline and scale dataOps for AI-ML Ops with a resilient, scalable, and fault-tolerant tech stack at a super cost-effective budget. The visibility of live streaming data engineered as an internal product helps faster go to market for product launches and handle quality issues at the tip of data scientists, developers, and data analysts. Offered as an On-Premise enterprise AI-SDK.

## CTO in Residence for early stage venture builds across 3 Venture Builders

- NEC Labs: Selected as a solopreneur after winning in NEC Hackathon Dec 2019. Founder in residence for AI/ML venture builds.
- Entrepreneur First: Partnered up with the CEO in Oct 2019 as an external Co-founder/CTO for a Remote work platform Lexi.
- Antler: Entrepreneur in Residence in a cohort of 100+ entrepreneurs to build an AI/ML data catalog (dataops) platform

# Nexchanges Technology [nexchanges.com, AI/ML price discovery proptech exchanges] Mumbai, Sept '13 – Jun'19

## Co-founder, Chief Technology Officer

- Raised 175k\$ USD as a pre-seed round from Singularity Ventures, friends and family to create a proptech price discovery platform for 20+Indian cities with a team of 25+ team members. Exited the venture by selling the tech. wealthy to an institutional proptech platform.
- In CTO capacity, architected a polyglot platform(concurrent 10k DAU) & built a team of 10 devs & 4 team leads to create a B2C OyeOk App on Android/iOS/WebApp platforms powered by functional backend in Erlang/OTP. A ML/AI property price discovery platform was engineered in AWS with 50+ data pipelines powering 100k+ weekly updated price indices in 20+Indian cities

#### **EDUCATION**

Year	Examination	Institution	Marks Obtained
2022-ongoing	Management Science & Engineering	Stanford University [USA]	80/100
2020 -ongoing	[Micromasters] Data Science & Statistics	Massachusetts Institute of Technology [MITx, USA]	77/100
2009	[UG Degree] B-Tech Computer Science	DA-IICT, India	8.21/10

## INNOVATION LABS/HACKATHONS/COMPETITIONS

- Innovation Labs: BJB-Launchpad(Singapore), NEC Labs(Singapore), SPTI(Mumbai-India), IIIT(Hyderabad, India)
- Hackathons: NEC Labs Singapore- Dec 2019 | Hackathon at IIT-B Mumbai, Jan 2015 | Ideathon at Web-Summit, Ireland, Nov 2014
- Competitions: CIIE IIM-A, Startup Idea: Mobile Banking, 2008 | Intel Program, 2008 | IIT-JEE Mains AIR 8787, Jun 2004.
- Venture Builders: Y-Combinator Startup School 2019, Entrepreneur First Singapore 2019 and Antler Singapore 2019

#### TECH STACK/DATA ENGINEERING

- Rust/Cargo, Rust-Rocket/Tokio, Functional(Erlang/OTP), OOPs(Python/Java), Design patterns, Distributed systems (Fault tolerant), iOS/Android, Angular/Vue.js/React.js/Ionic, Scrapy, GraphQL/REST, API/SDK, Docker/K8s, Serverless, CI-CD(DevOps), Fuzzy Testing, Monolith/Microservice, Datadog/Sentry, Terraform/Cloudformation, Data pipelines
- AWS/Google/Azure, EC2-ECS, Fargate/K8s/Dask, BigQuery, Athena, AWS Glue, Insights, Postgres, AWS S3, Azure blob storage
- KNN, MLE, K-Means, LR, Feature Extraction, PCA Analysis, Needleman–Wunsch, HuggingFace/Transformers, GPT-2
- Data Lake/Data Warehouse, Spark/Hadoop, Prefect-Dask/Airflow, Clickhouse/Druid, Kafka Streams/Faust/Kinesis, SQL/NoSQL
- Generative AI: LLMs/Diffusion/LMMs -GPT-4(Series) Gemini(Series), Lama2, Whisper, and Claude(Anthropic), Langchain, LangSmith, Agents & Autonomous Agents

## SOFTWARE ENGINEERING TOPICS OF PRACTICE

- 1. Generative AI: LLMs, RAG, Evaluations, Vector Databases, Knowledge Graphs & Data Pipelines
- 2. **Responsible AI:** Ethical and Explainable AI: Inclusiveness, Fairness, Transparency, Accountability, Reliability & Safety, Privacy & Security
- 3. Digital Assets: Bitcoin (Future of Inheritance via Miniscripts), Tokenization & Fractionalization & Decentralised Exchanges
- 4. Platform Engineering: Enterprise Service Bus, API Gateway, Integration Interfaces via Contracts and Service Bus(Kafka)
- 5. Data Engineering: Data pipelines & Orchestration, Data lakes, Data Warehouse, Data Mart and Data Catalogs
- 6. DevOps: CI/CD, Infrastructure as Code, Code Version Control, Containerization and Image Repository management
- 7. **DevSecOps:** Compliance, Bug Bounty, Security Policies, Live threat detection, Code static analysis and Vulnerability Scans
- 8. Scalability & Distributed Computing: Horizontal & Vertical scaling in K8s, multi-threading and Asynchronous architectures

## SPEAKING EVENTS - INDUSTRY PANELS, GUEST SPEAKER, DOING WORKSHOPS & GLOBAL CONFERENCES

- 1. Conference & Guest Speaker(s): Bitcoin Conference (HK), Plug & Play Tech(SG), Tenity Master Class(Switzerland)
- 2. Thought Leadership Closed Door Luncheon(s): Zoom Innovation, Ortus Club AI Leaders, FOSS in Financial Services
- 3. **Startup Investor Panel(s):** Hustle Fund(Angel Squad), Angel School & Tenity
- 4. Hackathon Judge(s): MAS Singapore AI Hackcelerator 2023 & Carta Investor at SFF 2023
- 5. Startup Judge(s): Tenity multiple batches 2023, AngelSchool Investment Committee 2022 & SPIT(India) intake Panel 2017
- 6. Tech Training Workshop(s): Kubernetes, Azure Cloud, Distributed Computing, AI/ML Gen AI and Digital Assets-Multi-Sig

#### 40+ ANGEL INVESTOR - THESIS, STARTUP DEALS & INVESTMENT COMMITTEE

Investment Thesis: US based Geo, Repeat Founders (Serial Entrepreneurs), Seed stage, Early traction metrics & Internet native play Investment Sectors: 3 Sectors only: Digital Assets/Bitcoin, Artificial Intelligence and Devtools

#### PREVIOUS STARTUP ADVISORY ROLE(S)

AngelSchool.vc (Singapore) 2022 & Clanx.ai (India) 2022 | Portcast.io(Singapore) 2021 | Vanna.com(Hong Kong) 2020

#### **MEDIA COVERAGE**

- 1. How innovation is driving value at private bank Julius Baer: Fintech Magazine, 5th January 2024
- 2. Bank Julius Baer setups up Innovation Lab in Singapore over Switzerland: Finews Asia, 9th Feb 2022
- 3. Portcast gets \$3.2M to create more transparent and predictable AI based supply chains: Techcrunch, September 7, 2021
- 4. Bootstrapping lesson from Black&White Aventura: Yourstory, 8th March, 2014