

Alex Joseph

📞 (+91) 9176390201
✉ alexsanjoseph@gmail.com
📖 blog.alexsanjoseph.com
🐙 alexsanjoseph
🌐 alexsanjoseph

Experience

- Apr 2023 –* **CTO and Co-founder, Netrin Sports Technologies** [↗](#)
Oct 2025
- Scaled platform from **30 to 300 paying customers (10x growth)** reaching **\$10,000 MRR** with **zero infrastructure cost increase** through technical optimization
 - Delivered complete infrastructure from scratch to **full-stack MVP in 6 weeks**, production beta in **9 months**
 - Executed **zero-downtime legacy migration** of complex research codebase to modern architecture using anti-corruption layers
 - **Architected and Implemented full technical stack:** C firmware, Flutter mobile, Kubernetes/Terraform on AWS, FastAPI backend, and Postgres on RDS with custom algorithms
 - Created **world's first live heart-rate guided training system** with real-time ECG processing at 512Hz.
 - Implemented **proprietary algorithms from scratch** for performance metrics, HRV analysis, and recovery tracking with comprehensive testing pipeline.
 - Managed **\$40,000/month engineering budget (70% of company)** with lean, expert team philosophy delivering high-impact results
 - Maintained **20-30% time allocation for debt reduction**, enabling rapid delivery without stability compromise
 - Led **fully distributed team** across cities, implementing comprehensive Agile workflows and quality processes
 - **Led product team and customer engagement**, establishing systematic feedback collection processes that directly informed product roadmap and feature prioritization
 - Led and mentored **8-member cross-functional team** with **zero attrition for 2.5 years**; team demonstrated exceptional loyalty by continuing work despite 50% salary cuts, with members achieving **100-300% salary increases** upon transitioning to new roles
 - **Championed early AI tool adoption** (Cursor, Claude Code, Lovable, Superwhispr) before mainstream, **doubling team productivity** while implementing AI-powered customer workflows and coaching automation
- Sep 2021 –* **Principal Engineer, Data Architect, HBK India** [↗](#)
Mar 2023
- Architect of the **Data Platform, bringing disparate data products** in the enterprise under the same roof.
 - Led the team in building the Batch Pipeline/Data Discovery modules in the Data Platform.
 - Architected the MLOps platform for HBK and implemented PoC showcasing capabilities for a new product.
 - Led scaling of Architectural practices within the Data Platform team by implementing processes like Decision Records, Advisory forms and formulating the first version of the Architectural principles for the team
- Apr 2020 –* **Principal Engineer, Engineering Team Lead, VIMANA** [↗](#)
Aug 2021
- Scaled data pipeline to **20B records/day (10x increase) in 6 weeks**, enabling enterprise-scale data processing.
 - **Led team of 12 engineers** across backend, frontend, and ops (entire team acquired by HBK).
 - **Architected cloud-agnostic platform** using Kubernetes for vendor independence, successfully deploying on AWS, GCP, and Azure for enterprise customers.
 - **Redesigned Data Science Pipeline** to Modern Data Stack, **reducing cost footprint by 90%** and enabling automatic scaling.
- Mar 2017 –* **Principal Engineer, Data Science Team Lead, VIMANA** [↗](#)
Mar 2020
- Built the **VIMANA Data Science Pipeline** framework enabling analytics via batch processing with R.
 - Designed data model for **Enrich**, the VIMANA flagship data processing platform, handling **billions of data points daily**.
 - **Built and led team of 4 engineers** and interviewed 100+ candidates for company-wide hiring.
- Apr 2014 –* **Senior Engineer, Data Science Team Lead, VIMANA** [↗](#)
Feb 2017
- **Integrated Data Science into VIMANA system** with production-quality pipelines for in-product analytics.
 - Collaborated with **NIST faculty in Maryland** on Digital Thread tools connecting as-designed, as-built, and as-measured manufacturing stages.
 - Developed **first R MTConnect adapter on CRAN** [↗](#) for machine tool data parsing and G-Code simulation.

Jun 2011 – **R & D Engineer, Manufacturing System Insights India**

Mar 2014 ○ Contributed to ProPEL flagship product development and showcased at IMTS 2014, Chicago.

Education

2019–2022 **Georgia Institute of Technology, Atlanta**, Online Master of Science, Analytics


GPA – 4.00/4

2007–2011 **Indian Institute of Technology, Madras**, Bachelor of Technology, Mechanical Engineering

GPA – 8.23/10

Personal Projects

Jan 2022 **Searching for a Riemann Hypothesis Counterexample** , Golang

- Finding a Riemann Hypothesis counterexample(ironically), by iteratively searching across integers.
- This application follows the [footsteps of a master programmer](#)  who did the same using Python.





Oct 2020 **AWS Instance Recommender** , Python

- Webapp to identify the cheapest combination of AWS nodes required to support a use case for a specified amount of CPU/RAM.
- The problem is expressed as a linear optimization equation and solved using the PuLP package.

Jun 2020 **Plagiarism Detection using Code Similarity Metrics** , R

- Automatically identified candidates who plagiarized in a campus selection challenge using code similarity
- Successfully managed to find ~600 malefactors who were automatically penalized from a pool of ~2000

Jan 2016 **CompareDF** , R Package

- Package to compare two datasets, published on CRAN with two major releases and many minor/patch releases.
- Implemented state of the art paradigms in R packaging — [CI/CD](#) , [code coverage](#)  and Docker deploy.
- Has 90+ stars, with 120K downloads, currently averaging ~1000+ downloads per month.
- Supporting the package for 9+ years, with [zero pending issues](#)  and [semantically versioned releases](#) .

Skills

Languages Python (Expert), R (Advanced), SQL (Advanced), Golang (Intermediate), Flutter (Intermediate), Svelte (Intermediate)

Data Engg Kafka, Elasticsearch, TimescaleDB, PostgreSQL, Prefect, Argo Workflows, PrestoDB/Trino

Infrastructure Kubernetes, Docker, Helm, Terraform, AWS, GCP, Azure, ELK, Flux CD

Frameworks & Tools FastAPI, Tidyverse, SvelteKit, Streamlit, Grafana, Kibana, Tableau, Metabase

Interests

Languages English | Malayalam | Tamil | Hindi | German | Spanish

Fitness Running | Calisthenics | Swimming | Surfing | Scuba Diving

Travel South India | Himalayas | Central Europe | Dubai | Georgia | USA | SE Asia | Japan

Misc Duolingo | WayBetter | Five-Thirty-Eight | The Ken | Codewars | Audiobooks | Seinfeld Strategy