

Ting Yao Fam

Software Engineer specializing in data, enjoys reading about databases, finance, trading, digital assets. Singaporean.

Email / LinkedIn

Technical Skills

- **Languages:** Proficient in Java, Python, Scala, SQL; Limited experience in JS/TS, R, Node.js, Go, C, C#, C++
- **Data Engineering:** Flink, Kafka, Pulsar, Clickhouse, Spark, Airflow
- **Java:** SpringBoot, MyBatis, gRPC
- **Cloud:** AWS Certified Solutions Architect, Google Cloud Certified Data Engineer

Professional Experience

Senior Software Engineer (Data), FX Trading Dev Team @ Tencent
(Sep 2021 - Present)

- Pioneered, developed and maintained the end-to-end data systems from ingestion to dashboard, for traders, product, and risk teams to monitor real-time positions, PnL, and risks
- Delivered backend rpc services that serves low latency, highly available FX market data, time series trends, and charts
- Architected the design and migration of the FX team's DataLake solution, reducing the time to production of dashboards from day to minutes
- Filed and awarded a patent for optimizing time series queries on FX rates data

Software Engineer (Data) @ Aqilliz (May 2020 - Aug 2021)

- Designed, implemented, and maintained the company's data infrastructure from scratch
- Built streaming and batch data pipelines that reconcile transactions from different data sources and deliver analytics

Software Engineer (Data) @ HOOQ (Mar 2019 - May 2020)

- Re-architected the data infrastructure from a purely data warehouse (Redshift) to a data lake (S3, Redshift Spectrum/Athena, Redshift) design, reducing operating costs by over 20%
- Improved readability, reliability, and flexibility of ETL processes by rewriting the legacy ETL processes (Windows Scheduler with Pentaho Data Integration) on Airflow DAGs and Python
- Conducted workshops and mentored junior team members

Senior Associate @ Deloitte (Mar 2018 - Jan 2019)

- Reconciled financial transactions across different banks to help identify anti-money laundering and terror financing law breaches

Software Engineer (Data) @ Dentsu Aegis Network (*Aug 2016 - Mar 2018*)

- Developed data pipelines to ingest structured and unstructured data
- Productionized machine learning models used in marketing attribution by rewriting the API codebase from R to Python, optimizing SQL queries, and reducing execution time by over 10x
- Architected and deployed an auto-scalable infrastructure stack on AWS (ECS) and GCP (GKE), reducing monthly costs by 80% and cutting deployment time down to less than 5 minutes (Cloud Deployment/Cloud Formation)

Google Squared Data & Analytics Trainee @ Google (*Jun 2016 - Feb 2017*)

- One of 25 graduates chosen from over 300 applicants (2016 cohort) in Google's Squared Data & Analytics Program (a collaboration with Singapore's IMDA), undertaking weeks of on-site training at Google in Web Analytics, Predictive & Text Analytics, R, BigQuery, and Google Analytics

Education

Georgia Institute of Technology (*Aug 2020 - Present*)

- Candidate for MS in Computer Science
- Specialization: Computing Systems

Nanyang Technological University - Singapore (*Aug 2012 - Jun 2016*)

- BE in Electrical and Electronic Engineering
- Specialization: Info-communication Engineering
- 2nd Class Upper Honours (Distinction)

KTH Royal Institute of Technology - Stockholm, Sweden (*Aug 2014 - Jan 2015*)

- Student Exchange Programme at the School of Information and Communication Technology

Awards

GM Award (team) - *Tencent* (*2023*)

- For trading platform delivering record transaction volume and P&L

Craftsman Award (personal) - *Tencent* (*2022Q4*)

- For re-architecting retrieval of FX rates, reducing execution from order of seconds to sub-100ms
- Filed and awarded patent

Certificate of Distinction – *NTU (Jun 2015)*

- Awarded for excellent performance during an internship

President Research Scholar with Merit – *NTU (Jun 2014)*

- Awarded for undergraduate research work in “Optimization of Photon Detection Systems” with DSO National Laboratories