

# Ting Yao Fam

Full-time software engineer specializing in data and part-time graduate student based in Singapore. Singaporean.

Email / LinkedIn

## Technical Skills

- **Languages:** Proficient in Java, Python, Scala; Limited experience in JS/TS, R, Node.js, Go, C, C#, C++
- **Data Engineering:** Flink, Hive, Presto, Spark, Airflow
- **Databases:** SQL (StarRocks, ClickHouse, Hive, Presto, Redshift, Athena, BigQuery, PostgreSQL); NoSQL (DynamoDB, HBase)
- **Cloud:** AWS Certified Solutions Architect, Google Cloud Certified Data Engineer
- **DevOps:** Deployment with AWS CloudFormation, Serverless Application Model, ECS; CI/CD with AWS CodePipeline, GitHub Actions

## Professional Experience

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

- Built backend gRPC services that serve low latency, highly available FX market data, time series trends, and charts using Java, ClickHouse
- Delivered real-time and batch analytics dashboards that helped traders, product, and risk teams monitor real-time positions, P&L, and risks using Flink, Kafka/Pulsar, Grafana, Spark, Hive
- Led the design of the FX team's DataLake solution, reducing the time to production of dashboards from T+1 to under a minute using StarRocks, Iceberg, Flink
- Filed and awarded a patent for optimizing time series queries on FX rates data
- **Languages used:** Java, Python

**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
- **Tools used:** Airflow, Apache Flink, AWS ECS, Kinesis, Athena, Glue, S3, RDS, API Gateway, Lambda, QuickSight
- **Languages used:** Python, Java, SQL, Node.js, Go

**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