Zayn Zheng Zhi

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PROFESSIONAL SUMMARY

10 years of work experience in data, AI and software engineering fields and 5 years experience dedicated to managerial roles.

Demonstrated ability to understand complex data sets, extract insights, and provide valuable recommendations.

Effective communicator with the ability to work collaboratively with internal stakeholders and external parties.

Led teams of up to 15 members across multiple countries in previous roles.

EDUCATION

Northwestern University   **Evanston, IL, United States**
Master of Science in Data Science   December 2028
- Specialization in Artificial Intelligence

The Hong Kong University of Science and Technology(HKUST)   **Hong Kong**
Master of Business Administration(MBA)   June 2026
- Global Leadership Program

The University of Chicago   **Chicago, IL, United States**
Professional Education Program   May 2024
- Artificial Intelligence and Data Science for Leaders

Huazhong University of Science and Technology(HUST)   **Wuhan, Hubei, China**
Bachelor of Engineering in Automation   June 2014
- Specialization in System Engineering(Computer Engineering)
- Co-founder of C-Indigo team to develop Android games

MANAGERIAL & TECHNICAL SKILLS

- People and agile project management.
- Critical and analytical thinking.
- Machine learning engineering architecture.
- Data strategy and management.
- GDPR/PDPA Singapore, AI Act.
- Vendor management and coordination.
- Model quality and data quality strategy.
- Application: Spring Boot, Cloud Foundry (PCF), Jenkins, Quality Gates, JMeter, OpenAPI,PostgresDB, MQ, HashiCorp Vault.
- Big data: Spark, Spark ML, Pandas, Impala, Livy, Yarn, Hadoop, Nifi, Splunk, Pytest, Pytest-PySpark.
- Deep learning: Tensorflow, Keras.
- Cloud Service: Cloudera(CML, Hue, Spark on K8s), Hue, Databricks ML FLow, AWS S3, Terraform.

EXPERIENCE

Mastercard   **Singapore**
Engineering Manager, Data Engineering   September 2023 – Present
- Managerial Contributions:
  - **Engineering Management:** Member of **Software Engineering Guild** of Mastercard; member of **AI & Data Science Guild** of Mastercard.
  - **People Management:** Managed a team of 5 and coordinated with global team members, successfully leading the development of automated machine learning and model monitoring pipelines, enhancing efficiency and performance.
  - **OKR and Performance Review:** Facilitated the implementation of OKRs, enhanced talent planning processes, and improved performance review systems, resulting in a more aligned and productive workforce.
- Business Contributions:
  - **Generative AI Engineering:**
  - **AI Governance and Responsible AI Service:** Directed software engineers, machine learning engineers and data scientists in the design, training, and deployment of models to online systems, delivering comprehensive engineering solutions that fulfilled AI governance requirements for North America and the EU.

- ○ **Data Privacy & Information Governance Engineering:** Collaborated with legal and compliance teams to create data privacy-compliant data pipelines and AI solutions, resulting in enhanced protection of sensitive demographic and geographic data across on-premises and cloud environments.
  - ○ **GTM Data Solution and Productization:** Delivered data model support for Mastercard products like Dynamic Yield, Portfolio Optimizer, Consumer Credit Analytics, and Supplier Enablement, ensuring effective data pipeline development and maintenance from preprocessing to final storage.
  - ○ **Cloud Migration and Integration:** Spearheaded the migration of on-prem prediction data workflows to AWS and Databricks, enhancing scalability and performance for machine learning engineers.
  - ○ **MLOps Pipeline Management:** Directed machine learning engineers in the development of over 500+ cardholder models, enhancing data quality and ensuring the reliability of model serving processes.
  - ○ **Technical Solution Architecture:** Led the engineering solution architecture for AI/ML projects, ensuring seamless integration of CI/CD pipelines, data and model quality management, and release management. Collaborated closely with Mastercard infrastructure, data infrastructure, engineering efficiency, builders tool, and analytics teams to ensure stable deployment and maintenance of AI/ML projects.
- Skills:
  - ○ People and agile project management.
  - ○ Critical and analytical thinking.
  - ○ Machine learning engineering architecture.
  - ○ Data strategy and management.
  - ○ GDPR/PDPA Singapore, AI Act.
  - ○ Vendor management and coordination.
  - ○ Model quality and data quality strategy.
  - ○ Application: Spring Boot, Cloud Foundry (PCF), Jenkins, Quality Gates, JMeter, OpenAPI,PostgresDB, MQ, HashiCorp Vault.
  - ○ Big data: Spark, Spark ML, Pandas, Impala, Livy, Yarn, Hadoop, Nifi, Splunk, PyTest, PyTest-PySpark.
  - ○ Deep learning: Tensorflow, Keras.
  - ○ Cloud Service: Cloudera(CML, Hue, Spark on K8s), Hue, Databricks ML FLow, AWS S3, Terraform.

Apple   **Singapore**
Data Solutions Lead   July 2023 – September 2023
- Business Contributions:
  - ○ **Data Warehousing:** Executed the implementation of data integration and data warehousing solutions, enhancing the efficiency and accuracy of the financial analysis team's data processing.
  - ○ **Data Reporting and Cloud Migration:** Orchestrated the successful migration of data reports from SAP to Snowflake and Tableau by collaborating with offshore financial analysis and business teams in India, Singapore, and China, resulting in improved data accessibility and reporting efficiency.
- Skills:
  - ○ Cross functional engagement.
  - ○ Cloud service: Snowflakes, Tableau, Spark, Airflow, Collibra.

OKX   **Singapore**
Data Architect   December 2022 – May 2023
- Managerial Contributions:
  - ○ **Data Strategies:** Facilitated strategic decision-making for C-suite executives and collaborated with the leadership team to enhance the group's data architecture and drive digitization transformation, resulting in improved data empowerment initiatives under the CEO's office.
  - ○ **Vendor Management:** Managed relationships with cloud providers and SAAS vendors, including AWS, Sensors Data, Alibaba Cloud, AppsFlyer, and Amplitude, resulting in streamlined data pipelines.
- Business Contributions:
  - ○ **Data Governance:** Enhanced data lineage, established data quality standards, and improved metadata management, resulting in more efficient data metric oversight and increased reliability of data-driven decision making.
  - ○ **SLA and Stability Assurance:** Enhanced the stability and service level agreements of existing commission rebate pipelines, leading to improved reliability and efficiency, while also investigating industry data products to offer personalized services.
  - ○ **Data Architecture:** Orchestrated the technical planning and execution of hybrid streaming-batch data pipelines, resulting in improved data service efficiency.
  - ○ **User Segmentation:** Designed and implemented a user segmentation pipeline for financial product recommendations on the home page, enhancing the effectiveness of the real-time data pipeline for the unified commission rebate system.
- Skills:
  - ○ Data strategy and data governance.

- ○ Vendor management and contract management.
- ○ Cross functional and C-suite stakeholder engagement.
- ○ Cloud service: AWS S3, AWS Personalize, Clickhouse, Alibaba Cloud MaxCompute, Alibaba Cloud DataWorks Data Modeling, Amplitude, AppsFlyer, Sensors Data.

Shopee   **Singapore**
Data Team Lead   May 2019 – September 2022
- ● Career Progressions:
- ● **Technical Lead:** Led the advertisement data team of 10 members in Singapore and 4 members in Beijing in 2022, conducting technical interviews and providing mentorship, which enhanced team performance and cohesion.

- ● Managerial Contributions:
  - ○ **Technical Lead:** Led the advertisement data team of 10 members in Singapore and 4 members in Beijing in 2022, conducting technical interviews and providing mentorship, which enhanced team performance and cohesion.
  - ○ **Reporting Manager and Team Lead:** Led a team of 10 in the advertisement data pipeline, overseeing recruitment, restructuring responsibilities, and managing OKRs, resulting in improved team efficiency and alignment with organizational goals.
- ● Business Contributions:
  - ○ **Feature Engineering:** Engineered and implemented a real-time machine learning data engine, enhancing the efficiency of training and data set preparation.
  - ○ **Data Lake Evolution:** Implemented Apache Hudi as a lakehouse solution and Kappa as a data warehouse architecture, resulting in a near-real-time market order data warehouse for the Southeast Asia and Latin America regions.
  - ○ **Data-driven Productization:** Developed and maintained data dashboards and reports for CRM and merchant analysis in the paid ads department, enhancing decision-making capabilities and improving campaign performance.
  - ○ **Advertisement Data Warehouse Construction:** Engineered and implemented a robust paid ads data warehouse, facilitating the generation of machine learning training data and enhancing data analytical product capabilities.
  - ○ **E-commerce Data Mart Construction:** Designed and developed Shopee's e-commerce key data mart from scratch, resulting in enhanced data accessibility and supporting multiple timezone data pipelines.
  - ○ **Data Security and Data Governance:** Collaborated with the compliance and infrastructure teams to standardize data access permissions and data processing logic, ensuring adherence to GDPR and various international regulations, which enhanced data security and governance.
- ● Skills:
  - ○ People and agile project management.
  - ○ Data architecture.
  - ○ Data governance and data modeling.
  - ○ Data analysis and data visualization.
  - ○ Application: Spring Boot, Jenkins, Docker, MySQL, Redis, OpenAPI.
  - ○ Big Data: Spark, Hive, Livy, Yarn, Hadoop, Sea Tunnel, Hudi, HBase, Kafka, Prometheus, Grafana, InfluxDB, Flink, Airflow, Superset, Druid.
  - ○ Cloud Service: AWS S3, AppsFlyer.

Alibaba   **Hangzhou, Zhejiang, China**
Engineer II   April 2017 – February 2018
- ● Business Contributions:
  - ○ Developed and sustained three systems: the seller onboarding system, the seller shop-transfer system, and the seller qualification management system, enhancing operational efficiency and streamlining seller interactions.
  - ○ Developed data marts in the seller onboarding system and seller qualification management system, enhancing data accessibility and improving the efficiency of seller evaluations.
  - ○ Streamlined and unified the construction of data warehouses for merchant qualification audit systems across Alibaba Group, Alipay Group, and the Government qualification system, resulting in improved efficiency and consistency in data management.
- ● Skills:
  - ○ Project Management.
  - ○ Application: Spring MVC, MySQL, Tomcat, Redis, Kafka
  - ○ Machine Learning: C5.0 Decision Tree.
  - ○ Cloud Service: Alibaba Cloud ODPS.

Mogujie   **Hangzhou, Zhejiang, China**

Senior Development Engineer   May 2015 – March 2017
- Business Contributions:
  - Developed and maintained the real-time data engine in the trading systems, enhancing data accuracy and responsiveness for improved trading decisions.
  - Managed trading search data and defined data requirements, enhancing the efficiency of trading-related operations.
  - Developed an order-related transactional event-driven message queue system in the trading center, addressing the customized trading needs of Mogu Inc., which enhanced operational efficiency and responsiveness.
  - Ensured data consistency in the trading-related distributed system, which improved reliability and accuracy of transactions.
- Skills:
  - Project Management.
  - Application: Spring MVC, J2EE, Hibernate, MyBatis, JPA, MySQL, Tomcat, JProfiler, MAT.
  - Big data: Rocket MQ, Hive, MapReduce, Storm.

Zhenai.com   **Shenzhen, Guangdong, China**
Assistant Java Engineer   June 2014 – April 2015
- Business Contributions:
  - Developed and maintained the company's backend projects, resulting in improved system performance and enhanced user experience.
- Skills:
  - Application: Spring MVC, J2EE, Hibernate, MyBatis, Memcache, MySQL, Tomcat, Resin, Servlets, JSP.
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ADDITIONAL INFORMATION

- **Nationalities:** Chinese, Singapore PR.
- **Languages:** English, Chinese(Mandarin)
- **Community Contributions:** Mentor of Mentoring SG Program, Industry Mentor of Nanyang Technological University(NTU)
- **Certifications:** Practitioner Certificate in Personal Data Protection (Singapore), Databricks Fundamentals, Databricks Lakehouse Fundamentals, Certification of Completion of Data Engineering with Databricks, Applied AI with Deep Learning.