

Mike (Xianing) Zhang

Principal Engineer(Data Platform & AI Engineering)
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Professional Summary

Engineering leader with 15+ years of experience designing and evolving enterprise-scale data platforms in highly regulated environments. Currently a Principal Engineer at Westpac, leading the end-to-end modernisation and migration of mission-critical data platforms to cloud-native architecture.

Proven track record in defining target-state architectures, leading large-scale data migrations from legacy systems, and embedding engineering standards across data ingestion, transformation, lineage, observability, and controls-by-design. Deep expertise in distributed data platforms including Apache Spark, Cassandra, and real-time streaming systems.

Led the adoption of AI-driven engineering practices, establishing agent-based development frameworks to accelerate enterprise platform migration and standardise spec-driven software engineering at scale.

Strong ability to balance hands-on technical leadership with executive-level influence, partnering across product, risk, and architecture to deliver resilient, scalable, and future-ready data foundations. Passionate about uplifting engineering capability and building high-performing teams.

Key Skills

Professional Expertise

- Large-Scale Data Migration (Legacy to Cloud-Native) – Led enterprise migration of trading and data platforms from on-premise DataStax/Spark to cloud-native architectures (Databricks, Astra DB), ensuring scalability, continuity, and risk control.
- AI-Driven Engineering & Platform Modernisation – Applying GenAI technologies and agent-based orchestration to enable spec-driven development and scalable AI-assisted delivery for enterprise platforms.
- Real-Time & Distributed Data Architectures – Deep expertise in building scalable, real-time data solutions using Cassandra, Apache Spark, streaming technologies, and distributed indexing (SAI, Solr).
- Technical Leadership & Engineering Capability Uplift – 6+ years of leadership across Westpac and DataStax, mentoring engineers in distributed systems, Kubernetes, and advanced debugging; building high-performing, cross-functional teams.
- Cloud Platforms & Security Architecture – Experienced in secure cloud design including VPC peering, PrivateLink, TLS, SSO, BYOK, and role-based access control, aligned with enterprise risk and compliance standards.
- Kubernetes & Cloud-Native Infrastructure – Certified Kubernetes Administrator (CKA) with hands-on experience in containerised environments and cloud-native platform operations.
- Engineering Standards, Delivery & Risk Management – Skilled in Agile delivery, sprint planning, backlog management, and managing delivery risks across concurrent workstreams, ensuring alignment with business and regulatory expectations.
- Stakeholder Engagement & Cross-Functional Leadership – Strong experience partnering with product owners, architects, and business stakeholders to prioritise features, manage risk, and deliver enterprise outcomes.
- Advanced Troubleshooting & Distributed Systems Expertise – Deep technical capability in diagnosing complex system issues using stack traces, heap dumps, TCP dumps, and remote debugging across distributed environments.

Programming languages

- Experienced in Java/Scala/C++/CQL/SQL/Gremlin QL
- Familiar with Go, Python
- Script Languages: Unix Shell, Java Script

Employment History

Mar 2023 - present

BT Financial Group, Westpac, Sydney, Australia

Principal Engineer(Data Platform & AI Engineering)

- Provide end-to-end technical leadership for the Panorama data platform modernisation, defining target-state architecture and driving platform evolution from legacy on-prem systems to cloud-native data platforms.
- Led large-scale enterprise data platform migration, architecting Spark-based migration and real-time streaming frameworks to transition workloads from on-prem DSE clusters to cloud-native Databricks and Astra DB.
- Architected a specification-driven engineering model using AI agents, achieving 100% consistency across delivery lifecycle, eliminating context loss, and improving coordination across development, QA, and DevOps functions.
- Designed and implemented secure-by-design cloud architecture (PrivateLink, TLS, SSO, BYOK), successfully meeting stringent ISG security and regulatory controls.
- Built and operationalised a full observability and monitoring platform (Splunk), enabling proactive detection, lineage visibility, and improved operational resilience across distributed systems.
- Drove platform stabilisation, scalability, and performance uplift, improving reliability and production readiness, and delivering a 40% reduction in total cost of ownership (TCO).
- Partnered with product, risk, and architecture stakeholders to prioritise platform evolution, manage delivery risks, and align engineering outcomes with enterprise objectives.

Feb 2016- Mar 2023

DataStax Australia Pty Ltd, Sydney, Australia

APAC Tech Lead - Escalation

- Led technical escalation and platform engineering support for enterprise customers operating large-scale distributed data platforms in regulated environments.
- Partnered with engineering and product teams to improve platform reliability, observability, and operational standards, including contributing fixes to Cassandra drivers.
- Developed internal tooling and automation to enhance diagnostics, incident response, and operational efficiency across APAC.
- Defined and delivered training and capability uplift programs, mentoring engineers in distributed systems, Kubernetes, and advanced debugging techniques.
- Influenced cross-functional stakeholders to improve platform resilience, supportability, and engineering quality.

Jul 2012 – Jan 2016

IBM Australia Development Lab, Sydney, Australia

DB2 LUW Advanced Support Engineer

- Perform problem determination and problem root cause identification for both defect and usage support for DB2 product, and build testing environments toward creating reproducible scenarios for any reported issues
- Focus on handling severity 1(database crash/ recovery, critical performance issue, migration, installation) Problem Management Records(PMRs) escalated from front line support
- Subject matter expert (SME) for DB2 optimizer and Database recovery
- Lecturer of Advanced Database Recovery for worldwide DB2 support team

Education and Qualifications

Sep 2007 – Feb 2010 **Master of Computer Applied Technology, Tongji University, Shanghai, China**

- Research topic: Web Services based Distributed Transactions Coordination
- Average GPA of 82/100, Major GPA of 93/100

Sep 2003 – Jul 2007 **Bachelor of Software Engineering, Tongji University, Shanghai, China**

- Average GPA of 4.14/5.0(top 10%), Major GPA of 4.57/5.0(top 10%)

Awards

2024

2024 Westpac Business and Wealth Technology Award

- Recognized for leadership impact in delivering the Panorama platform migration and driving large-scale data platform modernisation.

2018

Best Teamwork award, DataStax

- For the recognition of technical excellence and outstanding contributions to mentorship

2019, 2020

Customer Service Excellence award, DataStax

- Extra cash bonus(\$8000) for the recognition of excellence in supporting customer escalations with big business impact and achieving NPS of 100%