

Cui Wenshuo (Max)

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EDUCATION

SWISS FEDERAL INSTITUTE OF TECHNOLOGY AT LAUSANNE (EPFL) Sept 2018 – Aug 2021
Master of Science, Minor in Management of Technology *GPA: 5.69/6 (est. 93rd percentile)*

NATIONAL UNIVERSITY OF SINGAPORE (NUS) Aug 2014 – Aug 2018
Bachelor of Engineering (Mechanical Engineering) *Graduated Honours with Distinction*

PROFESSIONAL EXPERIENCE

TikTok | Data Engineer | Singapore July 2025 – Present

- Support the **TikTok Live Revenue Strategy business**, architecting and maintaining high-performance data models for Petabyte-scale data warehouse.
- Lead dimensional modelling and data modelling initiatives to unify core revenue metrics and ensure data consistency across global markets.
- Design and optimise robust data pipelines that empower the Revenue Strategy team with critical insights for strategic decision-making and growth tracking.

Temus | Data Engineer | Singapore Sept 2023 – July 2025

• **Genomic Data Analysis Infrastructure for Research Institute**

- Architected and implemented end-to-end infrastructure for one of Singapore's first large-scale Genome-Wide Association Studies (GWAS), processing unprecedented volumes (150TB+) of genomic data.
- Pioneered AWS EMR implementation to run workloads using Hail, creating a scalable Apache Spark environment for genomic processing.

• **Data Consulting for Singapore Statutory Board**

- Spearheaded comprehensive data management, governance, and architecture assessment; designed future-state operating models aligned with digital transformation objectives.
- Authored formal data governance and management policies ensuring full compliance with Singapore Government's Instruction Manual for ICT&SS Management (IM8).
- Organised collaborative workshops with 5 key departments to create an extensive data catalogue documenting 100+ data assets, establishing the foundation for the organisation's data strategy.
- Architected target data model and reference data architecture to enable cross-functional data usage and advanced analytics.

• **Legacy to ServiceNow Migration for Singapore Statutory Board**

- Managed critical data mapping and ETL processes for large-scale migration, ensuring seamless transition with a comprehensive post-migration validation framework.
- Developed custom ServiceNow utilities including an automated ERD generator and data schema tracking tool, reducing manual documentation effort by >50%.

Jabil | Data Platform Engineer | Singapore Sept 2021 – Aug 2023

- Assumed the role of acting technical lead in a high-performing digital transformation team responsible for developing and enhancing big data platforms for 100+ locations using Lakehouse architecture and modern stack (AWS, Spark, Python).
- Coordinated project timelines, allocated resources, and monitored progress to ensure timely delivery of high-quality data solutions.
- Design, develop and integrate Data Governance solutions such as enterprise data catalogue, data modelling and data sharing tools adopted company wide.
- Research, ideate, develop and deploy digital transformation projects for "factory of the future" through cutting edge technologies such as AR/MR/VR, cloud computing and data science.
- Drive innovation by evaluating emerging technologies and publishing position papers in topics such as AI, Blockchain and IoT.

Philip Morris International | Global Operation Strategy Intern | Switzerland Feb 2020 – Jul 2020

- Coordinated cross-functional teams (product owners, engineers, external vendors) to deliver critical manufacturing digital transformation initiatives across 11 global factories producing 30 billion units annually.
- Designed and implemented first global big data dashboard in Power BI with live streaming for production waste reporting, delivering actionable insights that reduced waste by ~20%.
- Provided subject matter expertise in data analytics, coached stakeholders on business intelligence tools and translated complex technical data to drive insights.

- Pioneered the research and development of predictive maintenance robots for ship machinery operations as part of the Rolls-Royce Ship Intelligence Programme (Autonomous Shipping).
- Designed and conceptualised various novel robotic concepts for autonomous ships, some of which were selected for elevated funding pitches.
- Presented and communicated the project with numerous stakeholders from different backgrounds to attract research funding.

PUBLICATION

■ Wenshuo, C. & Ralf, S. (2019). *Hema: New Retail Comes to Grocery*. IMD-7-2144. IMD Best-Selling Case Study.

ADDITIONAL INFORMATION

Certificates: AWS Solution Architect Associate, Azure Database Administrator, Google Data Analytics, IBM Data Science, DeepLearning.ai Specialisation, Meta Database Engineer.

Technical Skills: Python, SQL, AWS, Azure, Terraform, Kafka, Spark, Flink, erWin, PowerBI, Data Modelling, Dimensional Modelling, Data Architecture, Data Governance