

Ziliang Zhang

+31 6 44321411 | contact@ziliangz.com | ziliangz.com

TECHNICAL SKILLS

Languages: Java, Scala, Python, SQL (Postgres/MySQL), Bash

Big Data & Streaming: Spark, Kafka, Delta Lake, Distributed Systems (MapReduce, Event-driven)

AI & LLM: CUDA, LLM Inference/Fine-tuning, Quantization (GGUF/AWQ), RAG, Mistral-7B, llama.cpp

Backend & DevOps: Spring Boot, WebSocket, gRPC, Docker, K8s, CI/CD, GCP, Nginx, Performance Tuning

EDUCATION

TU Delft

B.Sc. in Computer Science

Delft, Netherlands

2022 – 2026

- **Relevant Coursework:** Big Data Processing, Data Mining, Computational Intelligence, Computer Security, Functional Programming, Human Computer Interaction, Research Project

Shanghai University

B.Sc. in Civil Engineering

Shanghai, China

2015 – 2019

EXPERIENCE

Tongji Architectural Design (Group)

Structural Designer

Shanghai, China

Aug. 2019 – Aug. 2021

- Executed structural analysis for large-scale projects, ensuring 100% compliance with national safety standards for complex concrete-steel structures.
- Led a digital transformation initiative: designed and implemented **C#-based secondary development plugins for Revit**, automating complex modeling workflows and **reducing manual design cycle time by 50%**.
- Acted as the technical bridge between mechanical, electrical, and structural (MEP) teams, resolving cross-disciplinary design conflicts using automated BIM-based collision detection.

PROJECTS

HUMANISE Project — Teleoperations & Robotics

Feb. 2024 – Aug. 2024

- Architected a scalable **gRPC-based backend server** to facilitate low-latency, multi-node telemetry synchronization between autonomous rovers and control units.
- Developed custom C++ hardware drivers for high-frequency sensor data ingestion, enabling real-time diagnostic monitoring and bottleneck analysis in constrained environments.
- Optimized asynchronous data pipelines to support concurrent processing of over 1,000+ data packets per second, ensuring sub-millisecond control loop latency.

WIS Retrieval Alignment Research — TU Delft

Sep. 2025 – Feb. 2026

- Led a systematic evaluation of **Information Retrieval (IR) alignment** within the WIS Research Group, focusing on closing the gap between offline benchmarks and real-world user satisfaction.
- Engineered an automated pipeline for large-scale data labeling, leveraging **Mistral-7B with 4-bit quantization (GGUF)** to process and index 300,000+ MS MARCO passage queries.
- Designed and implemented advanced **Multi-Shot prompting frameworks**, successfully reducing LLM evaluation bias by 25% and improving rank correlation with online click-through metrics.