FENGYAN ZHANG 20.03.1999

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Nieuwerkerk aan den IJssel, NL

SKILLS

Hard Skills/Knowledge:

Data Modeling & Structuring & Pipelines & Governance |
API Integration & Distributed Systems |
Frontend/Backend & Scripting (Nuxt.js, Vue.js, CMake, SQL) |
Technical Documentation & Workflow Structuring |
Analytical Thinking & Problem Decomposition

Behavioural Skills:

Strong Written Communicator (technical & conceptual) |
Structured & Clear Thinking |
Adaptability | Self-displined |
Collaborative | Curious

Programming Languages:

C++ | Python | PostgreSQL | JavaScript

Language Skills:

English (professional)
Chinese (native)
Dutch (beginner)
German (beginner)

HOBBIES

Piano | Snowboarding | Reading & Writing

ABOUT ME

MSc graduate in Geomatics (TU Delft) and former Research Assistant at RWTH Aachen, with experience building data-driven systems and integrating real-time information across platforms. My work focuses on structuring complex technical information into reliable, usable systems, ranging from data pipelines to web-based interfaces and APIs. I worked with distributed systems, data models and system integration, and I am interested in knowledge systems, tooling, and AI-assisted workflows.

EDUCATION

TU Delft | MSc Geomatics | Delft, Netherlands | **2021 - 2023**

Southeast University | BSc Geographic Information Science | Nanjing, China | **2017 - 2021**

University of Minnesota | GIS and Transport Planning | Minneapolis, USA | **Jul.2019 - Aug.2019**

WORKING EXPERIENCES

Research Assistant | RWTH Aachen | Aachen, Germany |
Nov. 2023 – Nov. 2025

Contributed to projects focused on building and structuring data-driven systems, while documenting workflows, supporting knowledge sharing, and engaging in teaching and academic writing.

- **Developed and maintained real-time data pipelines** using SensorThings API and MQTT, structuring complex sensor data into accessible and reliable system interfaces for downstream users.
- **Documented system architectures, APIs, and data workflows** to support collaboration across research and industry partners, improving clarity and reproducibility of implementations.
- **Collaborated with cross-functional stakeholders** (researchers, engineers, and external partners) to translate project requirements into practical solutions and structured workflows.
- **Structured and maintained complex data models and data schemas** to ensure consistency and usability for internal and external users.

PROJECTS

Systems & Data Processing | BIMConvertToGeo – Designed a pipeline to convert IFC models into structured CityJSON representations | geoCFD – Built preprocessing tools for geometry cleaning in simulation workflows.

Algorithms & Modeling | snapoly – Computational geometry algorithm for polygon processing | LCP Runoff Modeling – Implemented flow analysis algorithms for terrain data.

Data Structuring & Analysis | CityJSON – Developed methods to extract structured building attributes (volume, floors, roof orientation) | Spatial Interpolation – Implemented multiple interpolation techniques (IDW, TIN, Laplace).