# Honggang Yan

Dual Master's Degrees | Data Driven Professional

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## **Education**

## Frankfurt School of Finance&Management | MSc in Applied Data Science

Sept. 2022 - August 2024

• GPA: 1.6, Thesis: 1.0 | Focus: Data Management, Database, Statistics, Machine Learning, and Artificial Intelligence

Shanghai University | MSc in Civil Engineering

Sept. 2015 - April 2018

• GPA: 87.45/100 | Published Paper: Breakthrough Test on Preferential Flow in Municipal Solid Waste (indexed by EI)

## Yancheng Institute of Technology | BSc in Civil Engineering

Sept. 2011 - May 2015

• GPA: 3.21/4 | Outstanding Graduate Award

# **Professional Experience**

## Lufthansa Group | Advanced Analytics and AI Team

Frankfurt am Main

Data Science Intern

Dec. 2023 - Jun. 2024

- Developed a Retrieval-Augmented Generation (RAG) application to improve customer Q&A experience
- Designed the solution architecture for RAG on Azure integrating LLMs, embedding models and vector databases
- Established a framework to evaluate RAG performance using "LLM as a Judge" and "Human in the Loop"
- Completed the POC of an Audio Classification App using LLMs to reduce manual effort
- Researched methodologies for prompt engineering, BM25 and vector search
- Practical experience in Git version control, CI/CD and Docker
- Worked in an Agile Team, following the SCRUM Framework

## Lufthansa Group | Data Delivery Team

Frankfurt am Main

Data Engineering Intern

Jul. 2023 - Dec. 2023

- Deployed a budget management report (Power BI) for 20+ colleagues, improving vendor and budget management
- Developed a project management report (Tableau) and ETL pipeline to monitor tasks on Jira using Azure Data Factory and Databricks notebook, improving the transparency of project management for the team
- Curated 50+ airline customer data table schemas in Azure Purview, enhancing data quality and governance
- Tested and validated weekly Samba delta data loads to ensure timely and accurate data warehouse updates
- Developed and facilitated an onboarding process, ensuring a seamless experience for new team members

China Jinmao (0817.HK) Ningbo, China

Senior Investment Analyst - Real Estate

Mar. 2020 - Apr. 2022

- Closed two residential acquisitions, contributing €1.39 billion in consolidated revenue.
- Completed 8 investment reports for residential assets, presented to stakeholders, and participated in land bidding events
- Developed investment strategies, performed cash flow modeling and asset valuation, led investment decision meetings, negotiated terms, and closed acquisition transactions
- Led cross-functional teams (marketing, design, cost, finance, operations, engineering, and legal) to complete each investment report within one month, demonstrating project management and leadership skills
- Achieved "A" performance in 2021 and was promoted to Senior

#### **Zhongliang Holdings Group**

Hangzhou, China

Investment Analyst - Real Estate

May. 2018 - Mar. 2020

- Completed 12 feasibility reports on potential investments in the secondary land market
- · Developed and implemented SOPs for the investment department and subsidiary teams

## **Technologies**

Programming: Python, HTML, CSS, JavaScript, Flask, Django

Data Management: MS Excel, Numpy, Pandas, SQL, Relational Databases

BI Reporting Tools: Power BI, Tableau

Project Management: Jira, Miro, Sharepoint, MS Office Suite

DevOps: Azure DevOps, VScode, Git, CI/CD (GitHub Actions), Docker

Cloud: Azure AI/ML Studio, Azure AI Search, OpenAI services, Azure Data Factory

## **Projects**

## Personal Project | Energy Trading with Monte Carlo Simulations

Oct. 2024

- Simulated electricity procurement for utility companies, focusing on dynamic stop-loss strategy in different price trends
- Generated price paths using geometric Brownian motion to model various market trends (rising, falling, no trend)
- Conducted Monte Carlo simulations to evaluate strategy performance under different market trends

#### Nagarro | Airline Customer Review Analysis

Oct. 2023 - Jan. 2024

- Delivered a customer review analysis project with 20,000+ data entries from five European airlines
- Developed a sentiment analysis and topic modeling framework with sentence embeddings, clustering, TF-IDF, and LLaMA2
- Created an interactive Tableau dashboard to visualize key insights from the customer feedback analysis

#### Emma - The sleep company | LLM-Based E-mail Campaign Analysis

Aug. 2023 - Sept. 2023

- Completed a project leveraging NLP to analyze campaign emails and conversion rates
- Applied embedding techniques and similarity scoring to quantify abstract business challenges
- Conducted feature engineering and OLS regression to uncover key relationships between KPIs and email content

# **Extracurricular Activities**

Languages: English: C-level, German: A2 (B1 expected by Feb. 2025), Chinese: Native

Volunteer Work: 2024 European Cup, 2023 Lufthansa Culture Event, 2017 Shanghai Jazz Music Festival

Sports: Half-marathon finisher, Regular swimmer, and Cyclist