

# **Yunze Liao**

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## **EDUCATION**

### **University of Illinois Urbana-Champaign, Gies College of Business**

Master of Science in Financial Engineering (STEM designated program); GPA: 3.8/4.0

*Dr.Xiongwei Ju Scholarship Award Winner*

**Champaign, IL**

Dec 2024

Concentration: Computer Science & Engineering, Advanced Analytics

### **University of Illinois Urbana-Champaign**

Bachelor of Science in Computer Science + Chemistry, GPA: 3.5/4.0

**Champaign, IL**

May 2023

## **EXPERIENCE**

### **Sinopec Group.**

*Software Engineer*

**Beijing, China**

Jan 2022 – Aug 2022

- **Developed** a backend workflow engine from scratch using Spring Boot, enabling end-to-end processing of forms from initiation to ratification with features such as parallel and ordered countersignatures, automated nodes, and time-off management. Successfully **deployed** the engine across multiple projects, including Sinopec and Sany Heavy Industry.
- **Contributed** to an open-source Instant Messaging platform based on the WebSocket protocol, enhancing secure and efficient communication for China National Machinery Industry Corporation.
- **Participated** in the development of a Test Data Management system focused on IoT data collection using the Modbus protocol. **Designed** workflows for test applications and tasks, and **performed** data mining on test results, with a primary focus on implementing Weibull distribution analysis.

### **Qingchuangying Education Technology Co., Ltd.**

**Beijing, China**

*Teaching Faculty*

Oct 2021-Jan 2022

- **Developed and delivered** comprehensive Python and Scratch programming modules, fostering students' coding skills and computational thinking.
- **Assessed and monitored** student progress by evaluating daily assignments, providing constructive feedback, and conducting periodic evaluations to ensure continuous improvement.
- **Designed and implemented** UI/UX interfaces to offer parents transparent access to class feedback, student performance metrics, and homework grades, enhancing parent engagement and satisfaction.

## **ACTIVITIES**

### **Low-Code Development Platform**

**Remote**

*Developer*

Feb 2022 – Oct 2022

- **Developed** a platform utilizing object-oriented technology and Domain-Driven Design (DDD) to build and manage data models across multiple domains, defining intricate relationships between them.
- **Implemented** relationship mappings using FreeMarker, enabling the generation of code in Java, C#, PHP, Python, SQL, and other languages, facilitating the compilation of executable application systems.
- **Optimized** the algorithm for building tree structures with HashMap by integrating distributed deployment and multi-threading, increasing data model association relationship generation efficiency by over tenfold.

### **Financial Report Analyzing LLM – JIA Finance Practicum**

**Champaign, IL**

Jan 2024 – May 2024

- **Designed and implemented** algorithms to parse and preprocess financial documents (e.g., 10-K, 10-Q), enabling efficient indexing with platforms like LlamaIndex.
- **Conducted comprehensive research** on multiple state-of-the-art large language models (LLMs) and developed a question-and-answer database to quantitatively evaluate their performance.
- **Fine-tuned** large language models to specialize in financial report analysis, enhancing their accuracy and domain-specific effectiveness.

## **ADDITIONAL INFORMATION**

**Quant/Data Science:** Stochastic Calculus, Optimization, Numerical Analysis, Time-Series Modeling, Derivative Pricing

**Technical Skills:** Java, C/C++, Python, SQL, R, CUDA, ML (PyTorch/TensorFlow/scikit-learn), NumPy/Pandas

**Tools:** Docker, Linux, Git, Spring Boot, Flask, FastAPI, Redis, PostgreSQL, MongoDB, Nginx, Maven, LaTeX, Jenkins