



WELCOME TO MY RESUME

Yichao Sheng



yichaosheng1218@gmail.com

## ⊕ MY TARGET

I am eager to further enhance my web development skills through practical experience, laying a solid foundation for my future career. Additionally, I aim to apply my knowledge in machine learning to real-world projects to deepen my understanding of the field. Moreover, I am committed to improving my collaboration skills through teamwork, preparing myself for more team-oriented projects in the future. I also plan to continually improve my language skills to better adapt to a diverse working environment.

## HIGHLIGHTS OF QUALIFICATION

- During my undergraduate studies, I gained experience in developing web programs multiple times.
- During my undergraduate studies, I participated in multiple mathematical modeling competitions and used machine learning in these competitions.

## ⊕ EXPERIENCE

---

### Minister of Engineering Computing and Simulation Innovation Laboratory

- Responsible for organizing mathematical modeling competitions.
- Responsible for training freshmen on machine learning knowledge.
- Participated in writing mathematical assignments.

## ⊕ PROJECT

---

### Project1: Restaurant Ordering Web Application

- **Project Description:** Developed a web application for restaurant ordering aimed at optimizing customer dining experience and kitchen work efficiency.
- **Key Features:**
  - Implemented a dynamic meal order scheduling system, similar to an operating system task scheduler.
  - The program automatically adjusts the meal serving order based on various parameters such as customer order time, quantity of dishes ordered, dish preparation time, and customer waiting time.
  - Special optimization feature: When multiple customers order the same dish within a short period, the system automatically prioritizes that dish in the queue, allowing the chef to prepare multiple servings of the same dish simultaneously, effectively reducing preparation time and customer wait times.
- **Technology Stack:**
  - **Backend:** Java Spring - Used for building the server and managing backend logic.
  - **Frontend:** JavaScript, React, Vue - Used to create interactive user interfaces, with Vue enhancing responsive features and component management.
  - **Database:** SQL - Used for data storage and management.

## Project 2: CPU Simulation Model Machine

- **Project Description:** Designed a computer program that simulates the operation of a CPU using a model machine.
- **Main Components:**
  - Main Memory: Used for storing instructions and data, commonly referred to as primary storage or memory.
  - Arithmetic Logic Unit (ALU): Conducts logical operations. Under the control of the ALU operation control signal (ALUop), the ALU can perform various calculations on inputs A and B to produce a result F.
  - Control Unit (CU): Automatically retrieves and decodes instructions. It also acts as an interface for input and output devices to interact with the user.
- **Implemented Features:**
  - Operations with signed magnitude, two's complement, and one's complement.
  - Visualization of instruction flow.
  - Instruction decoding.
  - Translation of instructions into microinstructions.
  - Visualization of data in memory.
  - Visualization of the instruction pipeline.

## Project 3: Intelligent Ore Blending Economic System for Sintering Cost Optimization

- **Project Description:** Developed a Vue-based website that features an intelligent ore blending technology system to reduce raw material costs in blast furnace ironmaking.
- **System Features:**
  - **Ore Blending Production Model:** Integrated real-world ore blending production conditions from a specific company with sinter ore performance prediction algorithms to establish a cost and performance optimization model for sinter ore.
  - **Optimal Ore Blending Solution:** Achieved the optimal sinter ore blending scheme by first adapting sinter ore quality indices using the Pearson algorithm, followed by selecting the best predictive algorithms to establish a sinter ore quality prediction model capable of incremental learning.
  - **Automatic Ore Blending System:** Constructed an automatic blending system that uses linear programming to derive ore blending schemes meeting production requirements. Combined with predictive results, the system optimizes schemes that meet performance standards and are favorable for efficient blast furnace operation, ultimately delivering an optimal cost-performance ratio for sinter ore blending.

**1. Application of Meta-Learning in Cyberspace Security: A Survey**

**Publication Year:** 2022

**Journal and Issue Number:** Digital Communications and Networks 2352-8648

**Authors:** Aimin Yang, Chaomeng Lu, Jie Li, Xiangdong Huang, Tianhao Ji, Xichang Li, Yichao Sheng

**URL:** <https://www.sciencedirect.com/science/article/pii/S2352864822000281>

**2. Juvenile Mental Health Evaluation System Based on Principal Component Analysis**

**Publication Year:** 2022

**Journal and Issue Number:** International Journal of Education and Economics 2617-4227

**Authors:** Yongxiang Li, Yichao Sheng, Yanfeng He

**URL:** <http://www.acadpubl.com/ijee.aspx>(Vol4,No3)

**3. Gold Cluster Optimal Structure Prediction Based on Random Forest**

**Publication Year:** 2022

**Journal and Issue Number:** International Journal of Education and Economics 2617-4227

**Authors:** Renzhuo Wang, Yuwen Sun, Yichao Sheng

**URL:** <http://www.acadpubl.com/ijee.aspx>(Vol4,No3)