

Yunhai Hu

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EDUCATION

Shandong University, Shandong, China

September 2017 - June 2022

- B.Sc. in Mathematics and Applied Mathematics / Architecture
- **GPA: 4.2/5 (both majors)**
- Relevant Courses: Computer Network, Data Structures and Algorithms, Operating Systems, Object-Oriented Programming, Discrete Mathematics.

WORK EXPERIENCE

Big Data Architecture Department, Shanghai Bilibili Technology Co., Ltd.,
Development Engineer

Shanghai, China
September 2021 - Present

- Enhanced streaming and batch computing capabilities using the Flink engine.
- Developed stream-batch integrated technologies for forward-looking applications.
- Improved resource allocation efficiency, reducing costs and increasing operational effectiveness.

PRACTICAL ACHIEVEMENTS

- **Flink RocksDB Compression:** Developed and implemented a compression solution for RocksDB in Flink, reducing CPU usage and storage needs by 40-60%, and improving data transfer efficiency.
- **Flink Stream-Batch Integration and Cloud-Native Architecture:** Developed a system combining Flink and cloud-native technologies, enhancing data processing and achieving significant performance stability and efficiency.
- **Distributed Engine Migration and Intelligent Scheduling Platform (DEMISP):** Created solutions for efficient task migration between multiple engines, resulting in reduced costs and maintained business efficiency.

RESEARCH EXPERIENCE

High-Precision Spine Posture Dynamic Recognition Algorithm
Team Leader

Shandong University
December 2018 - October 2019

- Developed a GCNs-based algorithm achieving 91.4% accuracy in spine posture recognition.
- Awarded second prize at a national level and first prize provincially.

Predictive Algorithms for Edge Computing
Team Leader

Shandong University
December 2018 - October 2019

- Developed LSTM-based prediction algorithms to enhance network efficiency in edge computing.

Innovative Applied Research on Spine Posture Correction Device
Team Leader

Shandong University
October 2018 - December 2019

- Created a device for correcting spinal posture, integrating computer vision and behavioral analytics.

Advanced Information Technology Institute, Peking University
Team Leader

Hangzhou, China
September 2020 - June 2021

- Led the development of a large screen display system for intelligent factories, enhancing algorithm efficiency and system capacity.

EXPERTISE AND HONORS

- **Technical Skills:** Python, Java, C++, Flink, Kubernetes (K8S), Docker, Node.js, Redis, Spring.
- **Awards:** School Second-Class Scholarship, Third-Class Scholarship, Specialty Scholarship.