Yining Hou

Tel: +46 0760633873 · Mail: islahou2022@gmail.com
Stockholm, Sweden
Blog: https://eitd.github.io/ · Github: https://github.com/EITD

Education

East China Normal University, *Bachelor* 2019.9 –2023.6

- **Major**: Software Engineering
- **Courses**: Digital Logic (Theory and Practice 4.0/A), Principles of Programming (4.0/A), Data Structures and Algorithms (4.0/A), Object-Oriented Programming (Java 4.0/A), Functional Programming (4.0/A)

KTH Royal Institute of Technology, *Master* 2023.9 –present

- **Major**: Software Engineering of Distributed Systems
- **Courses**: Modern Methods in Software Engineering (A), Data Intensive Computing(A), High Performance Computing (A), Programming of Interactive Systems (A), Data Mining(IP), Scalable Maching Learning(IP)

Skills

- **Programming Languages**: C/C++, Python, Java, Kotlin, JavaScript, PHP, Erlang
- **Tech Skills**: Distributed Systems, Database Management, Data Analysis, Spark, Mobile & Web Development, Docker, Git
- **Non-Tech Skills**: Agile, Scrum, Leadership
- **Communication**: English(IELTS - 7 .5), Chinese(Mother Tongue), Japanese(N3), Swedish(A2)

Experience

KTH Data Systems Lab, Research Engineer 2024.6 –present

- Enhanced a link prediction model in a hybrid neural graph database(Orb), improving AI-driven data analysis.
- Integrated the machine learning models to Orb system implemented in C++ and backend graph database.
- Hands-on experience with CI/CD pipelines and version control using Git.

SAP, Software Developer Intern 2022.1 –2022.11

- Developed features for the SAP for Me application using Kotlin. Maintained documentations for research.
- Participated in the whole process of app lifecycle and collaborated with cross-functional teams.
- Managed fundamental quality checks like Unit Test, API Tests and Jenkins jobs.

Projects

Distributed Graph Neural Networks Training 2024

- Implemented k-hop neighborhood queries and message-passing-based neighborhood aggregation for GNN training, utilizing RPC and Socket protocols.
- Innovated with marker-based asynchronous training by epoch snapshotting via TCP FIFO channel for causality.

Finite Difference Wave Equation Simulation 2024

- Set up a double-slit experiment and optimized execution using HPC techniques: OpenMP for the shared-memory version and MPI for the distributed version.
- Analyzed performance with different threads and processes and developed a performance model.

Scalable Gesture Recognition Using HDFS and Spark 2024

- Developed a scalable system for gesture recognition using deep learning techniques, focused on efficient data storage and processing.
- Stored large data in HDFS and utilized Spark to read and preprocess the dataset in a parallel way.

Distributed Multi-Agent System based on GAMA 2023

- Implemented a multi-agent party scenario and optimized agent decision-making through machine learning.
- Integrated reinforcement learning using Q-learning and the Upper Confidence Bound.