Yining Hou

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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(A)

Experience

ABB, Master Thesis Student

2025.1 -present

- **Federated Learning:** Applied FL techniques to ensure data privacy across clients and enhanced model performance through optimized server-side aggregation and personalized client models.
- Data Drift: Investigated methods for detecting and mitigating data drift in a federated learning framework.

KTH Data Systems Lab, Research Engineer

2024.6 –present

- Machine Learning Model: Enhanced a link prediction model using Python, leveraging an HPC server for efficient model training and testing.
- **System Development:** Contributed to C++ based hybrid neural graph database system(Orb), ensuring interaction between components like machine learning engine and vector database.
- Database Management: Worked with graph databases, including Neo4j, to optimize hybrid queries.
- **DevOps:** Maintained CI/CD pipelines for testing and deployment, with version control using Git.

SAP, Software Developer Intern

2022.1 - 2022.11

- Android Development: Developed the SAP for Me mobile application using Kotlin and maintained documentation to support development and research.
- Testing & Quality Assurance: Ensured application reliability through rigorous unit and api testing.
- **Agile Collaboration:** Collaborated with cross-functional teams, leveraging agile methodologies, pair programming and code reviews to enhance code quality.

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.

Fine-Tuning Large Language Model with ORPO

2024

- Utilized Unsloth and ORPO to optimize LLM, adjusting parameters via LoRA Adapters and grid search.
- Integrated with an LLM-based evaluation system (Flow-Judge) for intelligent performance assessment and built a chatbot user interface with Gradio.

Skills

- **Technical Skills**: C/C++, Python, Java, Kotlin, JavaScript, Erlang, NoSQL, SQL, Android, Linux, Pytorch, MLFlow, Huggingface, Docker, Spark, Git, Github Action, Agile, Scrum
- Soft Skills: Problem solving, Critical thinking, Adaptability, Teamwork, Leadership, Time management
- Communication: English(IELTS 7.5), Chinese(Mother Tongue), Japanese(N3), Swedish(A2)