Li, Yuhan

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EDUCATION

Tianjin University   Tianjin, China

Master of Engineering in Computer Science and Technology   09/2022-06/2025

- Tianjin Key Laboratory of Advanced Networking (TankLab)

Bachelor of Engineering in Computer Science and Technology   09/2018-06/2022

- Experimental Engineering Education Class
- GPA: 89.49/100, 3.73/4.0, Major GPA: 90.81/100, 3.79/4.0

PAPER

Ma L, Liu X, **Li Y**, et al. GFBE: A Generalized and Fine-Grained Blockchain Evaluation Framework[J]. *IEEE Transactions on Computers, (TC)(CCF-A)*. 2024,73(03): 942-955.

Xu B, Liu X, Shen H, Han Z, **Li Y**, et al. Gentopia. AI: A Collaborative Platform for Tool-Augmented LLMs[C], *EMNLP (CCF-B): System Demonstrations*. 2023: 237-245.

Wang S, Jiao J, **Li Y**, et al. Answering Questions over RDF by Neural Machine Translating[C]. *ISWC (Demos/Industry)(CCF-B)*. 2020: 189-194.

RESEARCH EXPERIENCE

Research pertaining to Large Language Models (LLMs)   04/20/2023-10/25/2023

Summer Research at NC State University

Mentor: Dongkuan Xu, Assistant Professor, NC State University

- Designed the memory module associated with LLMs, which utilized a database of vectors, such as Pinecone, to store historical statistics for retrieval in subsequent processes
- Devised various strategies and technical implementations aimed at improving the efficiency of this memory module

Design and Implementation of the First Version of Golang Compiler   03/05/2021-06/12/2021

- Used Antlr4 tool to complete the lexical and grammatical analysis of Golang source code and obtain the AST
- Iterated over the AST to generate custom class three address codes, which are then converted to assembly to generate executable files
- Implemented most of the core functions of the C language

Research on Methods and Systems for Reconstructing Time Series of Large-Scale Astronomical Catalog Data   06/15/2020-04/15/2021

- Solved the load balancing problem of each process by using dynamic planning algorithms
- Collected the data of ascension, declination, and magnitude of the astronomical table, etc., and used the data structure of the class balanced tree to complete the efficient verification calculation of data
- Speeded up the computation process by parallel methods such as MPI

New Media Big Data Visualization Project   09/05/2020-01/12/2021

- Used the microblogging data during the World Cup, built a bipartite graph structure of words and posts
- Used graph anomaly data discovery algorithm to retrieve anomalous events
- Built a spanning tree for the graph and completed the extraction process of events with tree dynamic programming

- Used D3.js to visualize the front-end and python (flask) to build the back-end

PROFESSIONAL EXPERIENCE

Beijing Bytedance Technology Co., Ltd.   10/11/2021-03/11/2022

Intern, Product Development and Engineering Architecture Department (RTC Real-time Audio and Video Media)

- Provided real-time, efficient, high-quality, and easy-to-use RTC SDK for enterprises
- Completed the design of VR two-way interaction model demos based on ByteRTC SDK

HONORS

- Silver Medal, The 45th ICPC Asia Regional Contest (Kunming)   04/03/2021
- Gold Medal, The 45th ICPC Asia Regional Contest Jinan Site 2020   12/27/2020
- Silver Medal, 2020 Chain Collegiate Programming Contest, Mianyang Site   11/15/2020
- Individual National First Prize & Team Second Prize, The 6th CCCC Team Programming Ladder Competition   04/24/2021
- Second-class Scholarship, Tianjin University   11/05/2020
- Third-class Scholarship, Tianjin University   11/18/2019

COURSE DESIGN

Computer System-Design and Implementation of UAV Model Using Arduino Platform

09/11/2018-01/11/2019

- Implemented sensor monitoring, data return, and infrared control of the UAV model
- Completed on the basis of the Arduino platform and tested the development using C language

Machine Learning/Computer Vision-Huawei AI boot Camp Activities   06/05/2019-06/25/2019

- Implemented CNN-based neural network model for face image recognition using machine learning packages such as Pytorch
- Implemented extended functions such as real-time image recognition by importing OpenCV

Computer Systems - Designing a CPU based on MIPS Instruction Set Single Pipeline Architecture

- Designed on FPGA using System Verilog language   03/10/2019-05/25/2019
- Implemented several assembly instructions and tested the execution flow of some simple algorithms on the CPU

Computer Systems - Designed and Implemented NEMU, an X86 Instruction Simulator

- Completed the overall architecture design   09/10/2020-01/10/2021
- Implemented a number of test programs for the x86 instruction set and interacted with hardware devices by controlling interrupts, exceptions, and execution of assembly instructions

Computer Networks, Blockchain - Investigated and Implemented a Performance Testing Framework for Blockchain Systems   03/12/2022-05/30/2022

- Improved the flexibility of the blockchain testing framework
- Proposed abstract interfaces for abstracting individual chains and analyzed and compared their performance on three private chain systems (Ethereum, Chainmaker, Aelf)

COMPUTER SKILLS

- **Programming**: C (8yrs), C++ (8yrs), Java (6yrs), Python (6yrs), Rust (1yrs)
- **Operating System**: Windows (Proficient), Linux (Intermediate), Android (Intermediate)
- **Web Servers and Databases**: MySQL (Intermediate), Flask (Proficient)
- **WebClient**: HTML (Intermediate), JavaScript (Intermediate)
- **IDE**: IDEA (Proficient), PyCharm (Proficient), CLion (Proficient)
- **Applications**: Microsoft Office (Proficient), VS Code (Proficient), Visual Studio (Intermediate)