

SUYANG ZHONG

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WEBPAGE: suyang.zone

EDUCATION

University of Science and Technology of China

2018 - Present

Bachelor of Computer Science and Technology

Overall GPA: 3.67/4.3 Overall Weighted Average Score: 87.7/100

Core Courses: Principles and Techniques of Compiler (100), Formal Methods (97), Parallel Computing (95), Web Information Processing and Application (95), Mathematical Logic (94), Data Privacy (92)

EXPERIENCE

Study of Membership Inference Attack on Deep Learning Models

Oct. 2021 - Present

Supervisor: Prof. Jun Sun

Singapore Management University

- Develop tools and methods to bound the accuracy of membership inference attack.
- Verify the output distribution difference of models trained by adjacent datasets is less than a threshold.
- Use influence function to measure the influence of training samples on the model, and use attack accuracy as a criterion to measure the risk of training samples.

Towards automated understanding of software documents

Apr. 2021 - July. 2021

Supervisor: Prof. Yinxiang Xue

USTC

- Learn about industrial aviation ARINC653 standard document and its formal verification by human work.
- Do surveys of NLP techniques and software document analysis. Give some advice (e.g. selecting stop words) during the relation extraction process.

Study influencing factors of neural network pruning strategy

June 2020 - Sept. 2020

Supervisor: Prof. Bei Hua

USTC

- Choose 3 datasets of different degrees of complexity, and study the influence of datasets on pruning strategies for object detection task.
- Based on a mainstream model (YOLOv3) in object detection research, reproduce a pruning method (Network Slimming) and train new pruned models on different datasets.

PROJECTS

Cminus-F builder

Sept. 2020 - Jan. 2021

Lecturer: Prof. Cheng Li

USTC course project

- Course project of *Principles and Techniques of Compiler*.
- Learn about cminus-f (a subset of C) and LLVM IR.
- Complete a cminus-f compiler using flex and bison, including the kernel function of a compiler front-end, and some optimization, e.g. const propagation.
- Finish extra optimization tasks, e.g. dynamic dead code elimination.

Study of AI-System

May 2021

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MSRA-USTC Innovation Practice Project

- Use an online deep learning platform to solve several AI system relating problems. Learn about NNI usage and how it works.

Evaluation of an HTAP database

Supervisor: Prof. Heming Cui

July 2021 - Aug. 2021

HKU Summer Intern

- Deploy an HTAP database system (TKDE18'-Janus) on the servers, and test on the YCSB benchmark and CH-benchmark.
- Implement a new client for CH-benchmark, sending transactions to row and column servers.
- Improve the parser to support longer and more complex SQL queries (original one only supported single value read and write queries), and modify the servers to handle above those new transactions.

SKILLS

Programming	C/C++, Python, Java, Matlab and shell
Software Tools	GDB, Git, Docker, Qt, Nginx

AWARDS

Gold Medal, International Genetically Engineered Machine Competition (iGEM)	2019
Third Prize, USTC Electromagnetism Essay Contest	2019
Outstanding Student Scholarship in USTC, Grade 2	2020
Outstanding Student Scholarship in USTC, Grade 2	2021

ACTIVITIES

Study Monitor	Sept. 2018 - Present
TA: Analog and Digital Circuit	Fall semester, 2020
TA: Mathematical Logic	Spring semester, 2021