Xutong Liu(刘旭彤)

the Chinese University of Hong Kong
(852) 6212 7977
liuxt2371 AT gmail DOT com
liuxt AT cse DOT cuhk DOT edu DOT hk

Education

September 2017 - June 2021(Expected)

The Chinese University of Hong Kong - *Ph.D.'s Degree in CSE*

September 2013 - June 2017

University of Science and Technology of China - *Bachelor's Degree in CS*

September 2015 - January 2016

National Taiwan University - *Exchange Program in CSIE*

Grades

3.90/4.30(ranking: 2/106)
4.25/4.30(18 credits during the exchange program)

Working Experience

September 2016 - January 2017

Microsoft - *CJK applied Science Team, Data Scientist Intern*

Awards

CCF Outstanding Undergraduate Award - 2016

Huayu Scholarship -2016

National Scholarship - 2014-2015

National Scholarship - 2013- 2014

Skills and Interests

- Hardworking and eager to learn new things. Interested in Mathematics, Network Science and Machine Learning techniques.
- Have a good command of undergraduate courses such as Algorithms, Computer Networks, Operations research, Stochastic Process, Artificial Intelligence and so on.
- Programming skills: C/C++ >= Python >= Java >= C# >= Matlab.

Coursework(selected)

Compiler for C--

- A compiler for a subset of C language, implemented in C.
- Use Lex & Yacc/Bison for front-end parsing.
- Build AST, implement symbol table and register allocation for back-end code generation to ARM-V8 assembly.

Parallel computing frameworks based on Inferno OS

- Port and deploy Inferno OS as hosted OS on both heterogeneous platforms.
- Build a host & device model which supports 3 parallel operations: map, reduce and merge, using Inferno's Sytx Protocol and an encapsulated synchronous pool named File2chan.
- Implement an interpreter for users to translate serial parts into parallel codes.
- Implement some degree of error recovery to avoid single point of failure.

Mini messenger

- A Messenger with self-designed application layer protocol & user interface in Java.
- Implement register, login, chatroom and message & file sending, including offline & historical messages.
- Using multithreaded programing and synchronized data structure to avoid synchronization problems.

Research work(selected)

Recommending users to sellers for Taobao retailers

- A two state framework using BPR algorithm and submodular function technique
- Recommend accurate and novel customs to Taobao retailers
- Currently used by Tmall e-commerce website to improve the performance of the recommendation system.

Mining the user pattern based on Mobile App data

- Analyzing over 10 millions App usage data
- Build an author-topic model to extract 20 topics to portrait usage pattern of app users
- Develope a website for this project to visualize the results.

Knowledge base embedding based on Microsoft's Chinese Knowledge Graph

- Collect and clean data from Microsoft's Chinese Knowledge Graph.
- Pretrain model using TransE algorithm.
- Use cTranR and PTransE Algorithm and SGD to train the model.
- Utilize the result to do link prediction, tripler classification and relation extraction from texts.