Chenxi (Cecilia) Yang

CONTACT INFORMATION Department of Computer Science The University of Texas at Austin Austin, TX, 78751

(+1) 512-960-6965 https://cxyang1997.github.io/

cxyang@cs.utexas.edu

EDUCATION

Fudan University, Shanghai, China

Sep. 2015 - Jun. 2019

B.Sc (Outstanding Student Honor Program), School of Computer Science

- GPA: **3.62** / 4.0, School Ranking: **6** / 111
- Major GPA: **3.77** / 4.0

The University of Hong Kong, Hong Kong

Aug. 2017 - Dec. 2017

Exchange Student, School of Engineering, Department of Computer Science

PUBLICATIONS

- Jian He*, **Chenxi Yang***, Zhaoyuan He, Ghufran Baig, Lili Qiu. *Adaptive Scheduling for Edge-Assisted DNN Processing*. In Submission.
- Chenxi Yang, Yang Chen, Yuan Xuan. Sensing Peoples Time Management Activities: A Study Using Wearable Devices. Proc. of the 16th ACM Conference on Embedded Networked Sensor Systems (SenSys18), Poster Session, Shenzhen, China, Nov. 2018.
- Chenxi Yang, Yang Chen, Qingyuan Gong, Xinlei He, Yu Xiao, Yuhuan Huang, Xiaoming Fu. *Understanding the Behavioral Differences Between American and German Users: A Data-Driven Study.* Big Data Mining and Analytics, 2018, 1(4):284-296. [PDF]
- Shuang Jiang, Dong He, **Chenxi Yang**, Chenren Xu, Guojie Luo, Yang Chen, Yunlu Liu, Jiangwei Jiang. *Accelerating Mobile Applications at the Network Edge with Software-Programmable FPGAs*. Proc. of IEEE International Conference on Computer Communications (INFOCOM 2018), Honolulu, HI, USA, Apr. 2018. (Acceptance ratio: 309/1606=19.24%) [PDF]

RESEARCH EXPERIENCE

Sensing Peoples Time Management Behaviors Based on Wearable Devices

Advised by Prof. Yang Chen, Fudan University

Jun. 2018 - Apr. 2019

- Research Assistant at Mobile Systems and Networking Group.
- Implemented a novel application for time management based on wearable devices.
- Presented the first attempt to collect and analyze users patterns about using smartphones, and allowed a collective understanding of users task completion rate and how users' task engagement is influenced by smartphones and other external factors.
- Designed an one minute online survey to study potential factors, covering 93 participants. The results showed that the category of application has the greatest impact, followed by the progress of the current task and location.

Data Driven Study on User Behavior Differences in Online Social Netwrok

Advised by Prof. Yang Chen, Fudan University

Oct. 2017 - Apr. 2018

- Research Assistant at Mobile Systems and Networking Group.
- Provided a comprehensive statistical and demographic analysis of American and German users behavior based on the Yelp Open Dataset, and compared the results in a comprehensive manner.
- Demonstrated that American users are more influential on Yelp than German users, and their friends
 are scattered in more cities and German users have a clearer line between daytime and nightlife than
 American users. Our results also proved that collectivism is important for German users, whereas
 individualism is a priority for American users.
- Verified the feasibility of applying big data analysis in the context of cultural behavior. And Employed our analysis of users online behavior to construct a classification model that can accurately detect whether a user is from the USA or Germany. This classification model achieved an F1-score of 0.891 and AUC of 0.949.

FPGA-based Edge Computing for Accelerating Mobile Applications

Advised by Prof. Chenren Xu, Peking University

Jul. 2017 - Aug. 2017

- Research Assistant at Center for Energy-efficient Computing and Applications.
- Combining the advantages of edge offloading and FPGA-based computational acceleration, designed
 and built an FPGA-based edge computing model, which effectively reduce the response time and
 energy consumption.
- Designed a proof-of-concept FPGA-based edge computing system, and performed the experiments in a case study using three CV-based interactive applications.
- The results showcased that the FPGA-based edge computing system reduced the response time and execution time by up to 3x and 15x respectively over CPU-based edge/cloud offloading. And our system achieved up to 29.5% and 16.2% energy efficiency on mobile device and edge nodes respectively.

INTERNSHIP EXPERIENCE

Goldman Sachs Asia L.L.C, Technology Division

Summer Analyst, Hong Kong

Jun. 2018 - Aug. 2018

- Worked at Goldman Sachs Electronic Trading (GSET) Team.
- Designed and implemented automatically filling-in timesheet in the firm.
- Built a workload generation tool, which simulated the procedure of trading orders flowing through the OSI layers for testing the new generation ultra low latency DMA trading gateway.

Professional Service

Teaching Experiences

• Software Engineering

2019 Fall

Reviewer of the following conferences

- ACM HT'18
- ICC'18
- GLOBECOM'17

Awards & Honors

Shanghai outstanding graduates (Top 2%)
 Meritorious Winner, Mathematical Contest in Modeling
 Chinese National Scholarship (Top 2%)
 First Prize, Honor Program Scholarship of Computer Science (Top 3%), Fudan University
 Fung Scholarship, The University of Hong Kong
 2017
 2nd Prize of the Scholarship for Outstanding Students, Fudan University
 2016

PROJECTS & WORKS

- Workload Generation Tool for testing the trading system
- Word Recognition based on a Digital Signal Processor
- Drowsy Driver Detection and Video Classification Tool
- Online Tutor Selection System
- Book Management System with data storage on MySQL
- Simulation of a simple CPU
- Map Navigation using various graphic algorithms

Professional Skills

- Python, C/C++, Java, Javascript
- MySQL, Git, Gnuplot, SNAP, Scapy, Qt, Android
- WEKA, XGBoost, Pytorch, Tensorflow
- LATEX