Minghe Zhang

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EDUCATION

College of Engineering, Georgia Institute of Technology   **Expected 2019**

M.S in Electrical and Computer Engineering, Overall GPA: 4.0/4.0

Department of Microelectronics, Tsinghua University   **Aug 2015 - Jul 2017**

B.E. in Electrical Engineering, Overall GPA: 89/100 (Rank 5/25), Major GPA: 92/100 (Top 3 in 25)

Department of Electrical Engineering, Tsinghua University   **Aug 2013- Jul 2015**

Overall GPA: 89/100, Major GPA: 91/100 (Rank: Top 15% out of 270+ students)

Department of Electrical Engineering, University of Southern California (USC)   **Jun 2016- Sept 2016**

Full-time researcher through the THU&USC summer exchange program; only 8 students selected from Tsinghua University

RESEARCH EXPERIENCES & COURSE PROJECTS

Data mining and Machine Learning in vehicle systems | Tsinghua University | Research Assistant   Sept 2015 – May 2017

➢ Collected and monitored raw data from sensors on vehicles, and filtered irrelevant data by utilizing the Gaussian filter method

➢ Used Tensorflow to study different driving styles based on the filtered data, which allowed the software to distinguish whether the car is turning around, accelerating, coasting, etc

➢ Applied the Binary Nerual Network (BNN) methods to Tensorflow to accelerate the study process and computation speed

➢ Developed a hardware structure of NMS algorithm in image recognition and ran it on FPGA

Deep Learning for Graph Alignment | Georgia Tech | Research Assistant   Dec 2017- May 2018 (expected)

➢ Currently taking CSE Special Problem course on inexact graph matching based on Neural Network technology with graph alignment

➢ Embedded node in the graph to vectors (node2vec) using deep walk method and find community based on similarity of vectors

➢ Proposed a method to use biased random walk based on a certain pattern for graph alignment problem

Data Visualization of LinkedIn Network (Python & JavaScript) | Georgia Tech   Dec 2017- Dec 2017

➢ Used Python script bot to crawl data from LinkedIn website and conducted preliminary data cleaning using OpenRefine

➢ Implemented K-nearest Neighbors Algorithms(KNN) to gain a better performance towards clustering data

➢ Achieved network visualization showing recommendation level of career paths based on D3.js

Cloud-Based Real-Time Chatroom (Python & Java) | Georgia Tech   Dec 2017- Dec 2017

➢ Created a chatroom for gamers to send messages in real-time an Android App based on Chat SDK and Firebase

➢ In charge of back-end programming in Android Studio and wrote functions to add timestamp on each partial message

➢ Developed and simulated a protocol that dramatically improve real-time performance of mobile messaging by allowing incremental and continual message sending while typing

PUBLICATION

Hsiao-Lun Wang, **Minghe Zhang**, Peter A. Beerel, "Retiming of Two-Phase Latch-Based Resilient Circuits"

➢ Published on the Design Automation Conference (DAC 2017), Mar 2017.

SKILLS

Programming: C/C++, java, python, JavaScript, Scala, R, Perl

Platform: MATLAB, Android Studio, Hadoop, SQLite