Haoyue TANG

PERSONAL DATA

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EDUCATION

AUG 2013-CURRENT	**Tsinghua University**, Beijing, China Bachelor of Engineering(Anticipated) | Department of Electronic Engineering **Representative Courses** Probability and Stochastic Processes (1)(95) Functions of Complex Variables and Equations of Mathematical Physics(96) Communication Systems(96) Signals and Systems(90) Data and Algorithm(89) Calculas A1(96) Calculus A2(88) Linear Algebra A1(96)
FALL 2015/16	Technische Universität München, Bayern, Deutschland Exchange Student in the Department of Electrical and Computer Engineering **Representative Courses:** Stochastic Signals, Communication Networks, Signal Processing, *Graduate Level Courses*: Digital Signal Processing Laboratory, Information Theory(rank 1st) Optimization in Communication Engineering
SUMMER 2016/17	Imperial College London, London, the United Kindom Summer Intern in the Department of Electrical and Electronic Engineering

RESEARCH EXPERIENCE

Current MAR 2016	DTV Technology R&D Center of Tsinghua, Tsinghua University *Research Assistant* Advisor **Prof. Jintao Wang** Project: Low-Complexity Symbol Detector in Large Scale MIMO system Carry out a literature research about sparse signal processing and compressive sensing algorithm Implement a program for raw video encoding based on ffmpeg, conducted experiments and provided data for further analysis Proposed calculation complexity method for evaluating encoder efficiency
Aug 2016 JUN 2016	Communication and Signal Processing Group, Imperial College London *Research Assistant* Advisor **Dr. Wei Dai** Project: Sparse Deep Learning Structures in Neural Networks Carry out a literature research about structure tuning and simplification in neural networks Proposed a novel sparse network training method based on neural penelization term with no loss of accuracy

Nov 2014-Aug 2015	Competitive and Collaborative Communication Laboratory, Tsinghua University *Research Assistant* Advisor **Prof. Bo Bai** **Project: Data Mining and Analysis of Social Networks** Study basic knowledge of Data Mining and Graphics Theory Implement a Python Crawling Program for Information Spreading Trace and Friendship Relationships Study the characteristics of different types of message trace

Activities

Rhythmic Gymnastic Team, Tsinghua University March 2015 - Current
Associate Leader
Physical Team of the Department of Electrical Engineering Feb 2015 - June 2015
Leader of the Aerobic Group
15th Team Software Development Competition, Tsinghua University June 2014 - June 2015
Member of the website group in the competition platform development team
16th Team Software Development Competition, Tsinghua University June 2015 - Current
Technical Guidance and Deputy Minister
Student Association of Electrical Engineering, Tsinghua University June 2014 - Current
Deputy Minister of Outreach Group

Awards

Oct. 2016	Zhou Huiqi Scholarship, Tsinghua University
Jun. 2016	Top World Scholarship for Summer Overseas Research, Tsinghua University
Oct. 2015	Zhou Huiqi Scholarship, Tsinghua University
May. 2015	China Scholarship Council Excellent **Undergraduate** Fellowship
Dec. 2014	**Second Prize** in non-physics specialties group, Beijing College Physics Competition
Oct. 2014	Scholarship for **Academic Excellence**(Zhou Huiqi Scholarship), Tsinghua University
Oct. 2014	Scholarship for **Science and Innovation**, Tsinghua University
Oct. 2014	Scholarship for **Physical Excellence**, Tsinghua University
Nov. 2012	Silver Medal in 29th National Physics Olympics Contest(Ranking 61 out of 92000)

Publications

Haoyue Tang, Longzhuang He, Jintao Wang, Bayesian Matching Pursuit based Symbol Detector for Large Scale MIMO Systems. Published as a conference paper in 2016 IEEE Annul Broadcasting Symposium

Other Related Projects

· Designed a MIPS CPU with pipeline on FPGA
· Designed a MIPS assembler with Python
· Designed a website to for discussion, participation and online combats for the 15th Team Software Development Competition
· Some C++ Projects: Student Score Management System, Library Management System
· Some MATLAB Projects: JPEG encoder and decoder, Face detection, Speech processing System
· Java Project: Instant Chatting App

Languages

English:	Excellent listening, speaking, reading and writing abilities
	TOEFL 104(Reading 29 Listening 25 Speaking 23 Writing 27)
Deutsch:	Intermediate Knowledge(B1 Standard)

Computer Skills

Programming Skills:	Proficient with C/C++, Matlab, Python, Java
	MIPS Assembly, Verilog
Simulation Skills:	Multisim, Modelsim
Additional Skills:	vim, git, php, MySQL

Interests and Activities

Rhythmic Gymnastic (Deputy Leader of Tsinghua Rhythmic Gymnastic Team, member of Group All-Round Champion in Beijing Tournament)

Technology, Open-Source, Programming

Reading, Travelling