

Tianli Zhou

Infrastructure Researcher and Developer

Education:

Expect May, 2020	Texas A&M University
College Station, TX	Department of Electrical and Computer Engineering Ph.D. in Computer Engineering
2015.08 – 2017.07	The University of Tennessee
Knoxville, TN	Department of Electrical Engineering and Computer Science
2012.09 – 2015.04	Harbin Engineering University
Harbin, China	MEng of Information and Communication Engineering
2008.09 – 2012.06	Harbin Engineering University
Harbin, China	BEng of Electro-Information Engineering of Underwater Acoustics

Selected Coursework:

Artificial Intelligence, Machine Learning, Computer System Organization, Software Systems, Algorithms, Data Structures, Introduction to Data Mining, Applied Cryptography

Publications:

Zhou, T., Tian, C. (2019). Fast erasure coding for data storage: a comprehensive study of the acceleration techniques. *ACM Transactions on Storage (TOS)*. (Accepted)

Zhou, T., & Tian, C. (February, 2019). Fast erasure coding for data storage: a comprehensive study of the acceleration techniques. In *Proceedings of the 17th USENIX Conference on File and Storage Technologies* (pp. 317-329). USENIX Association.

Mousavi, S., **Zhou, T.**, & Tian, C. (2018, June). Delayed parity generation in MDS storage codes. In *2018 IEEE International Symposium on Information Theory (ISIT)* (pp. 1889-1893). IEEE.

Zhou, T. (2015). *Windows Programming (Third Edition)*. China: Post & Telecom Press.

Zhou, T., Chen, T. Zhang, Z. (2014). *Easy using Electronic Components*. China: Chemistry Industry Press.

Li, Z., Gong, X., **Zhou, T.** (2014). *Introduction to Bitcoin*. China: Post and Telecom Press.

Full-time Job Experience:

2015.04 – 2015.07	Baidu. Co
Shenzhen, China	Group of Connected Car Researcher and Developer
	<ul style="list-style-type: none">● Build customized adb bridge on WinCE platform● Protobuf based communication with Android APP● WinCE real-time video/audio stream rendering● Car head-unit touch event detection and reporting

Personal info:

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Email:

zhoutianli01@gmail.com

www:

<http://tzhou.net>

GitHub:

<https://github.com/zhoutl1106>

Skills:

Skill	Years' Experience	Level
C/C++	11	Proficient
GUI Library (QT, MFC, wxWidget)	4	Proficient
Linux	4	Proficient
Bash/Python	3	Excellent
Java/Android	2	Excellent
Micro controller	2	Excellent

Project Experience:

- 2017.07 – Present **Department of ECEN, Texas A&M University**
College Station, TX Graduate Research Assistant
Fast erasure coding for data storage: A comprehensive study of the acceleration techniques
- Study current acceleration techniques
 - Propose an efficient coding procedure
 - Optimize using Simulated annealing and genetic algorithm
 - Give a key finding to an unanswered question in the field
 - Performance comparison against many reference codes
 - Release source code as an open-source software
- Delayed parity generation in MDS storage codes
- Proposed a new two-stage delayed parity generation scheme
 - Performance evaluation
- 2015.08 – 2017.07 **Department of EECS, University of Tennessee**
Knoxville, TN Graduate Research Assistant
Personal reliable storage system
- Raspberry Pi based hardware nodes
 - Failure tolerant erasure code
 - NFC and WIFI communication
- 2014.03 – 2015.03 **School of Science, Harbin Engineering University**
Harbin, China Student Software Developer
Grain seed color selection system
- ARM-Linux based hardware platform
 - GUI with QT framework
 - Serial and network communication
- 2011.11 – 2012.04 **Harbin Engineering University**
Harbin, China Undergrad Student Researcher
Thesis of B.S. Degree: Multi-function signal generator
- Arm-Linux based hardware platform
 - DDS signal generator on FPGA
 - SPI cross-chip communication
 - OpenGL waveform display
- 2010.10 – 2011.10 **Harbin Engineering University**
Harbin, China Student Software Developer
Underwater Acoustic Remote ROV
- TI OMAP-L137 and TI MSP 430 based hardware platform
 - PC-end GUI with OpenGL and MFC
 - Direct Input joystick control
 - Position detection and feed-back PID control

Teaching:

- Summer, 2017 **Department of EECS. University of Tennessee**
Summer Camp for High-school Students
- Raspberry Pi based platform
 - Introduction to python programming
 - Motion detection using OpenCV
- 2017 **Department of EECS. University of Tennessee**
Teaching Assistant
COSC 581, Algorithm
- 2016 ECE 255, Intro/Logic Design Digital System
- 2015 - 2016 COSC 130, Computer Organization

Awards and Honors:

- ◆ Feb. 2019, Boston, MA, USA.
USENIX FAST'19 student grant
- ◆ Oct. 2011, Dalian, China. The
12th National "Challenge Cup"
Collegiate Extracurricular
Academic Work Competition,
Second prize
- ◆ Jan. 2010, Harbin, China.
American Mathematical
Modeling Contest, Second prize
- ◆ Sept. 2010, Harbin, China.
National Undergrad Electrical
Design Contest, Third prize
- ◆ Jun. 2009, Harbin, China. ACM-
ICPC Campus Competition of
Harbin Engineering University,
Second prize

Certifications:

China Qualification Certificate of
Computer and Software
Technology Proficiency: Software
Design Engineer.