

# Lin, Tzu-Heng (Brian)

*Senior undergraduate student* (graduate: 2018)

Department of Electronic Engineering

Tsinghua University, Beijing, P.R.C

Taiwanese citizen, Living in Beijing

Phone: +86-131-2192-9165

Email: [lzhbrian@gmail.com](mailto:lzhbrian@gmail.com)

Wechat: lzhbrian

Github: [github.com/lzhbrian](https://github.com/lzhbrian)

Linkedin: [linkedin.com/in/lzhbrian](https://linkedin.com/in/lzhbrian)

URL: [www.lzhbrian.me](http://www.lzhbrian.me)

## Areas of Interest

Computer Science

Data Mining, Machine Learning

Computer Vision

## Education

- 2014-2018 B.S. in [Electronic Information](#), Tsinghua University
- 2014-2018 B.B.A. in [Management \(2nd Degree\)](#), Tsinghua University

## Appointments held

### PROFESSIONAL

- 2017.2- Research Software Engineer Intern, [OwlII Inc.](#), Beijing
- 2016.4- Research Assistant, [Future Internet & Communication Lab](#), Tsinghua University, Beijing
- 2016.7-2016.8 Summer Research Intern, [Data Insights Research Lab](#), Academia Sinica, Taiwan

### STUDENT ASSOCIATIONS

- 2015.9-2017.2 Vice President, [THU MakerSpace](#)
- 2015.7-2016.5 Vice Leader (Web Dev Lead), Dept. of Web & Publicity, [Student Association of Science & Technology](#), EE, THU (EESAST)
- 2015.9-2016.5 Vice Leader, Dept. of Competition, Student Association of Science & Technology, THU

## Service to the profession

- 2017 Reviewer, [IEEE TNSM \(IF=3.314\)](#) (*IEEE Transactions on Network and Service Management*)
- 2017 Reviewer, [ACM IMWUT \(Ubicomp\)](#) (*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*)

## Publications

### CONFERENCE

- ACM  
CIKM'17 Huan Yan, **Tzu-Heng Lin**, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin and Ben Zhao. On Migratory Behavior in Video Consumption. In Proceedings of The 26th ACM International Conference on Information and Knowledge Management, Singapore, November 2017, to appear
- IEEE  
Globecom'17 Huan Yan, **Tzu-Heng Lin**, Ming Zeng, Jing Wu, Jiaxin Huang, Yong Li, Depeng Jin. Characterizing the Usage of Mobile Video Service in Cellular Networks, In Proceedings of 2017 IEEE Global Communications Conference: Communications Software, Services and Multimedia Apps, Singapore, Dec 2017, to appear
- AAAI  
ICWSM'17 Huan Yan, **Tzu-Heng Lin**, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin, Ben Y. Zhao. A First Look at User Switching Behaviors Over Multiple Video Content Providers. In Proceedings of International AAAI Conference on Web and Social Media, Montreal, Canada, May 2017
- ACM  
CoNEXT'17 **Tzu-Heng Lin**, Yong Li, Pengyu Zhang. In-app User Clicking Behavior Identification via Mobile Traffic Mining. **Submitted to ACM CoNEXT'17**

### JOURNAL

- Springer  
MTAP Huan Yan, Zhifeng Wang, **Tzu-Heng Lin**, Yong Li, Depeng Jin. Profiling Users by Online Shopping Behaviors. **Accepted, Multimedia Tools and Applications, Springer**
- IEEE  
TNSM Huan Yan, **Tzu-Heng Lin**, Chuhan Gao, Yong Li, Depeng Jin. On the Understanding of User Behaviors Over Multiple Video Content Providers. **Submitted to IEEE TNSM**

## Scholarships & Honors & Awards

### SCHOLARSHIPS

#### Scholarships for Comprehensive Performance

- 2017 *Bao Gang Scholarship* (Top 1%, highest honor), Baosteel Education Foundation <sup>1</sup>
- Tsinghua Alumni - Hong Qian Scholarship* (Top 10%), Tsinghua University <sup>2</sup>
- 2016 *Tsinghua Alumni - Zheng Geru Scholarship* (Top 10%), Tsinghua University <sup>3</sup>
- Second Prize *Taiwanese Student Scholarship* (Top 3/50), Minister of Education, P.R.C
- 2015 First Prize *Taiwanese Student Scholarship* (Top 2/50), Minister of Education, P.R.C

#### Individual University Scholarships

- 2015 - 2017 *Science and Technology Excellence Scholarship*, Tsinghua University x 3
- 2015 - 2017 *Social Work Excellence Scholarship*, Tsinghua University x 3
- 2016 *Art and Cultural Excellence Scholarship*, Tsinghua University

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<sup>1</sup>Highest Honor for HongKong, Macau, Taiwanese Students Studying in Mainland China

<sup>2</sup>Awarded for multiple individual scholarships

<sup>3</sup>Awarded for multiple individual scholarships

## HONORS

- 2016 [Maker Representative](#), Tsinghua University
- 2015 Member of the [Qi Chuang Entrepreneurial Talent Training Program](#), Tsinghua University
- 2014 Graduate from high school with the highest honor.  
College Admission Offers From:  
[Tsinghua University \(THU\)](#), [Peking University \(PKU\)](#), [Hong Kong University \(HKU\)](#),  
[National Taiwan University \(NTU\)](#), [National Tsing Hua University \(NTHU\)](#)

## AWARDS

- 2016 Championship (as Team Leader), [Tsinghua Make-a-thon 2016](#)
- 2015 3rd Prize (as Team Leader), Final, [China-US Maker Competition](#), MoE, P.R.C & Intel  
2nd Place (as Team Leader), Beijing, [China-US Maker Competition](#), MoE, P.R.C & Intel  
Championship (as Team Leader), [Tsinghua Make-a-thon 2015](#)  
3rd Prize (as Team Leader), [Tsinghua Programming Contest 2015](#)

## Skills

### KNOWLEDGE

- Experienced Data Mining, Machine Learning, User Behavior Analysis  
Startup, Business Model
- Familiar Math (Calculus, Linear Algebra, Discrete Mathematics, Probability, Stochastic Process)  
Computer Vision  
Computer Network  
Computer Architecture  
Software Engineering  
Signal Processing, Electronic Circuit Design

### PROGRAMMING LANGUAGES

- Experienced Python, Matlab, C/C++
- Familiar Shell Script, R, Verilog, Java, SQL

### TOOLS & SOFTWARES

- Experienced git, Hadoop, Qt, CUDA,  $\text{\LaTeX}$   
Linux, OSX
- Familiar pandas, scikit-learn, theano, DL4J, Weka, Tableau  
OpenCV, Dlib, Eigen, libigl (Contributor on Github)  
Meshlab, Meshlabserver (Contributor on Github)  
gem5, Wireshark, Multisim, Modelsim  
Arduino, Processing, SketchUp, 3D printing  
Jupyter Notebook, Vim, tmux, CMake, gcc, g++  
Web Dev (Django, Yii, Bootstrap, HTML, CSS)  
iOS Dev (Xcode), Android Dev (Android Studio)

## LANGUAGES

Native	Mandarin
Fluent	English (TOEFL 102, IELTS 7.5, TOEIC 910, GEPT high-intermediate)
Basic	Taiwanese

## Courses taken

### ONLINE MOOC

CS344	<a href="#">Intro to Parallel Programming (CUDA GPU) (Udacity)</a>
ML	<a href="#">Machine Learning (Coursera)</a>
DL.AI	<a href="#">Neural Networks and Deep Learning (Coursera)</a>

### B.S. IN ELECTRONIC INFORMATION

Computer Science related	Intro to Information Science and Technology
	Intro to Electronic Information Science and Technology (1)(2)
	Operating System
	Mordern Computer Architecture
	Communications and Networks
	Computer Network: Technology and Practice
	Fundamentals of Network technology
	Fundamental of Digital Logic and Processor (CPU)
	Fundamental Experiment of Digital Logic and Processor (CPU)
Programming related	Data and Algorithm
	C/C++ Programming (1)(2)
	Advanced Matlab Programming
	Web Design and Produce
Math related	Calculus A (1)(2)
	Linear Algebra (1)(2)
	Discrete Mathematics
	Probability and Stochastic Processes (1)(2)
	Functions of Complex Variables and Equations of Mathematical Physics
	Intro of Mathematical Modelling
AI and ML related	Pattern Recognition
	Media and Cognition
	Digital Image Processing
	Dialogue between Neuroscience and Artificial Intelligence: Fudamentals and Frontiers
Electronic Engineering related	Physics for Scientists and Engineers A (1)(2)
	Fundamentals of Electronic Circuits and System (1)(2)
	Electrodynamics
	Quantum Mechanics and Statistical Mechanics
	Foundation of Solid State Physics
	Lab. of Physics (1)(2)
	Synthetical Practice of Electronics System Design

Signal Processing related	Basic Experiment of Electronic Circuits and Systems
	Physical Electronics Foundation Laboratory
	Electronic Circuit Course Design
	Electromagnetic Field and Microwave Experiment
	Communication Circuits Laboratory
Signal Processing related	Signals and Systems
	Digital Signal Processing
B.B.A IN MANAGEMENT (2ND DEGREE)	
Economics and Management related	Accounting Principles
	Principles of Economics
	Business 101
	Strategic Management
	Marketing Management
	Operation Management
	Intellectual Property
	Information Systems
	Corporate Finance
	Organizational Behavior
Startup related	Innovation and entrepreneurship: insight from Silicon Valley
	How To Start a Startup - Face To Face with Famous Entrepreneurs
	Social innovation and entrepreneurship
	Internet Business Model Innovation
	Management of Technological Innovation
	Leadership
	Entrepreneurial Finance
	Leadership Development

## Projects

Please refer to <http://lzhbrian.me>

Last updated: October 28, 2017