

# Zexi Huang

PhD Student

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## Research Interests

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**Network Mining** Analysis of social, informational and biological networks with machine learning and data mining techniques.

## Education

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### College of Engineering, University of California, Santa Barbara

*Santa Barbara, USA*

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

*Sep. 2018 - Present*

- Course GPA: 4.0/4.0.
- Advisor: Prof. Ambuj Singh, Research topic: Network mining.

### Yingcai Honors College, University of Electronic Science and Technology of China

*Chengdu, P.R.China*

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND TECHNOLOGY (HONORS)

*Sep. 2014 - Jun. 2018*

- GPA: 3.96/4.0, Avg. Score: 92.79/100 (1/90 in freshman year, 1/87 in sophomore year, 1/93 in junior year).
- Thesis: Transfer Learning for Community Detection.

### College of Electrical and Computer Engineering, National Chiao Tung University

*Hsinchu, Taiwan*

EXCHANGE STUDENT

*Feb. 2016 - Jun. 2016*

- GPA: 4.0/4.0, Avg. Score: 96.44/100, Straight A+.

## Internship

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### School of Computer Science and Engineering, Nanyang Technological University

*Singapore*

VISITING RESEARCH ASSISTANT

*Sep. 2017 - Feb. 2018*

- Advisor: Asst. Prof. Sinno Jialin Pan, Research Topic: Transfer Learning.

## Research Experience

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### Representation Learning for Dynamic Networks

*Santa Barbara, USA*

RESEARCH ASSISTANT, WITH PROF. AMBUJ SINGH, AT DYNAMIC NETWORKS: ANALYSIS AND MODELING LAB, UCSB

*Sep. 2018 - Present*

- Currently exploring the fields of representation learning, graph neural networks and graph wavelets.

### Transfer Learning for Community Detection in Multiplex Networks

*Singapore*

VISITING RESEARCH ASSISTANT, WITH ASST. PROF. SINNO JIALIN PAN, AT COMPUTATIONAL INTELLIGENCE LAB, NTU

*Sep. 2017 - Jun. 2018*

- Proposed to refine community detection results in some layers with transferred knowledge from other layers in multiplex networks.
- Designed a representation-based community detection framework and implemented it with an extended symmetric NMF approach.
- Our algorithm outperforms other representation-based community detection algorithms, especially when the target layer is noisy.

### Overlapping Community Detection Based on Game Theory-incorporated Label Propagation Dynamics

*Chengdu, P.R.China*

RESEARCH ASSISTANT, WITH PROF. JUNMING SHAO, AT DATA MINING LAB, BIG DATA RESEARCH CENTER, UESTC

*Jul. 2016 - Aug. 2017*

- Proposed an intuitive algorithm for fast overlapping community detection in networks.
- Introduced gain and loss functions from game theory to model the intrinsic dynamics between nodes.
- Results are comparable to state-of-the-art algorithms.

## Teaching Experience

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### CS 174A/174N: Fundamentals of Database Systems

*Santa Barbara, USA*

TEACHING ASSISTANT, WITH PROF. JIANWEN SU, AT DEPARTMENT OF COMPUTER SCIENCE, UCSB

*Fall 2018*

## Relevant Skills

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**Programming** Java, Matlab, C/C++, Python, SQL, LaTeX, Verilog, ARM, Lingo, Android  
**Tools** Oracle, Origin, SPSS, RVDS, Simulink, Gephi, Mathcad, Multisim  
**Languages** Chinese (native), English (fluent), Germany (basic)

## Honors & Awards

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### Outstanding Bachelor Thesis Award of UESTC

10%

Jun. 2018

### Tang Lixin Scholarship for Studying Abroad

\$1,453

Jun. 2018

### Department of Computer Science Outstanding Scholar Fellowship at UCSB

6%, TOP FOUR OUT OF 63 ADMITTED PHD STUDENTS, \$10,000

Mar. 2018

### Department of Computer Science Academic Excellence Fellowship at UCSB

\$2,000

Feb. 2018

### The Most Outstanding Students Award of UESTC

0.2%, TOP TEN OUT OF 5,000 SENIORS, \$2,180

Dec. 2017

### Honorary Graduate of Sichuan Province

1%, TOP ONE IN YINGCAI HONORS COLLEGE

Dec. 2017

### Honorary Graduate of UESTC

10%, TOP TWELVE IN YINGCAI HONORS COLLEGE

Dec. 2017

### National Scholarship of China

0.2%, TOP TWO IN YINGCAI HONORS COLLEGE, \$1,162

Nov. 2017

### National English Competition for College Students of China 2017

0.1%, SPECIAL PRIZE IN NATIONAL FINAL (LEVEL C, FOR NON-ENGLISH PROFESSIONALS)

May. 2017

### People's Scholarship of UESTC

4%, SPECIAL CLASS, TOP FOUR IN YINGCAI HONORS COLLEGE, \$436

Dec. 2016

### Tang Lixin Scholarship of Yingcai Honors College

1%, FIRST PRIZE, TOP ONE IN YINGCAI HONORS COLLEGE, \$4,359

Dec. 2015

### Tang Lixin Scholarship of UESTC

0.2%, \$1,453 PER YEAR UNTIL GRADUATION

Dec. 2015

### The 7th Chinese Mathematics Competitions

0.05%, 1ST OUT OF 1819 SELECTED CANDIDATES IN SICHUAN PROVINCE

Nov. 2015

## Extracurricular Activities

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**General Judge of SB Hacks V Hackathon**

**Student Speaker of UESTC Open House for Prospective Students**

**Senior Student Speaker of Yingcai Honors College Opening Ceremony**

**Trainee of Innovation Technologies Training Course at HKUST**

**Member of Academic Group of Tang Lixin Elite Student Club of UESTC**

**Ambassador of Cross-culture Communication Group of UESTC**