

Curriculum Vitae of JIALE CHENG

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CURRENT RESEARCH INTEREST

Information theory, network coding, and its applications in data privacy/security

EDUCATION

Southeast University (SEU), Chien-Shiung Wu Honored College Nanjing, China
Bachelor of Engineering in Communication Engineering 09/2016-06/2020

- Relevant Coursework: Introduction to Information Transmission, Principle of Communication, Optimization Methods for Communications and Signal Processing
- Honors: Honored Graduate of Chien-Shiung Wu Honored College, 2017 National Endeavour Scholarship

Southeast University (SEU), School of Information Science and Engineering Nanjing, China
Master of Science in Communications 09/2020-06/2023

- Supervisor: Nan Liu, Wei Kang
- Research Fields: information theory, network coding, private information retrieval, coded caching, secure multiparty computation
- Relevant Coursework: Network Coding: Fundamentals and Applications, Network Information Theory, Detection and Estimation, Stochastic Process
- Average Score: 92.52/100

University of Michigan, Electrical Engineering and Computer Science Ann Arbor, U.S.
Doctor of Philosophy in Electrical and Computer Engineering (ECE) 08/2023-Present

- Supervisor: Hessam MahdaviFar
- Track: Network, Communication, and Information Systems
- Research Fields: information theory, network coding, coding theory

JOURNAL PUBLICATIONS

[1]. J. Cheng, N. Liu, W. Kang and Y. Li, "The Capacity of Symmetric Private Information Retrieval Under Arbitrary Collusion and Eavesdropping Patterns," in *IEEE Transactions on Information Forensics and Security*, vol. 17, pp. 3037-3050, 2022, doi: 10.1109/TIFS.2022.3201375. [Get paper](#)

[2]. J. Cheng, N. Liu, W. Kang, "On the Asymptotic Capacity of Information Theoretical Privacy-preserving Epidemiological Data Collection," in *Entropy (Special Issue: Advances in Information and Coding Theory)*, vol. 25, no. 4:625, 2023, doi: 10.3390/e25040625. (Featured Paper) [Get Paper](#).

CONFERENCE PARTICIPATION

2022 IEEE East Asian School of Information Theory (EASIT2022) Shenzhen, China 08/2022

- Participated as a student member
- Student Poster Session: "The Capacity of Symmetric Private Information Retrieval Under Arbitrary Collusion and Eavesdropping Patterns"

2021 IEEE East Asian School of Information Theory (EASIT2021) Online 08/2021

- Participated as a student member

2021 IEEE International Symposium on Information Theory (ISIT2021)

Melbourne, Australia

07/2021

- Served as an invited reviewer of the paper

2019 IEEE International Workshop on Signal Processing Systems (SiPS2019)

Nanjing, China

10/2019

- Student Poster Session & Oral Presentation: “The Design and Simulation of Phased Array Focus in Ultrasonic Wireless Power Transmission”

American Association of Physics Teachers (AAPT) Summer Meeting

Cincinnati, OH

07/2017

- Student Poster Session: “On the falling of a rigid body”

RESEARCH EXPERIENCE

National Mobile Communications Research Laboratory (NCRL)

Nanjing, China

09/2020-Present

- Interests in information theory and network coding
- Participate in the research supported by the National Natural Science Foundation of China
- Published a paper in IEEE Transactions on Information Forensics and Security
- Filed a Chinese patent (Publication No. CN 114567488 A)

National Engineering Research Center for Optical Sensor/Communication Integrated Network

Nanjing, China

09/2018-02/2020

- Using the Phased Array Focus to study the Ultrasonic Wireless Power Transmission
- Responsible for the simulation of a proposed design before physical implementation
- Participated in SiPS2019

EXTRACURRICULAR ACTIVITY

Jiangsu Province Blood Center, Nanjing, China

10/2017-09/2018

- Served as a volunteer in Jiangsu Province Blood Center to offer assistance to the blood donors
- Enrolled as a registered volunteer of the Red Cross Society of China

HONORS & AWARDS

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| • The Rackham Ph.D. Student Fellowship | 2023 |
| • IEEE Student Member | 2021 |
| • IEEE Information Theory Society Membership | 2021 |
| • Honorable Mention in Mathematical Contest of Modeling (ICM) | 2019 |
| • National Endeavour Fellowship of China, Southeast University | 2017 |

SKILLS & INTERESTS

- Language Skills: Chinese (native), English (fluent), Japanese (elementary knowledge)
- Computer Skills: MATLAB, C/C++, Microsoft Office Tools, LaTeX, Mathematica, Photoshop
- Interests: Reading, Piano, Table Tennis