

Yuanxin “Kevin” Guo

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EDUCATION

The Chinese University of Hong Kong, Shenzhen

September 2018 - Present

Bachelor of Science

GPA: 3.899/4.000

School: School of Science and Engineering

School Ranking: 4/135

Major: Mathematics and Applied Mathematics

Major Ranking: 4/79

Honors: Academic Performance Scholarship, Class A, 2019-2020; Dean's List, 2019-2020

RELATED EXPERIENCE

Research Engineer Intern

January 2021 - Present

WIRELESS TECHNOLOGY LAB, HUAWEI TECHNOLOGIES

Shenzhen, China

- *Supervisor: Dr. Mengyao Ma*
- Conducted research on polar codes, Reed-Muller codes, and non-asymptotic information theory.

Undergraduate Research Intern

June 2020 - Present

SHENZHEN RESEARCH INSTITUTE OF BIG DATA

Shenzhen, China

- *Supervisor: Prof. Zhi-Quan Luo*
- Developed and analyzed statistic-based algorithms for intelligent reflecting surfaces (IRS).

Research Assistant

June 2019 - Present

NETWORK CODING LAB, CUHK(SZ)

Shenzhen, China

- *Supervisors: Prof. Shenghao Yang, Dr. Ximing Fu*
- Developed theory and algorithms on shift-XOR codes with applications in storage systems.

Undergraduate Student Teaching Fellow

September 2019 - December 2020

SCHOOL OF SCIENCE AND ENGINEERING, CUHK(SZ)

Shenzhen, China

- Taught tutorial sessions for Linear Algebra, Complex Variables, and Calculus I.

PUBLICATIONS & PATENTS

- (J.1) On the Equivalence between Pre-transformed Monomial Codes and Parity-check Monomial Codes. **Yuanxin Guo**, Zihan Tang, Bin Li. Submitted to IEEE ISTC 2021.
- (C.2) Successively Solvable Shift-Add Systems - A Graphical Characterization. Xiaopeng Cheng, Ximing Fu, **Yuanxin Guo**, Kenneth W. Shum, Shenghao Yang. Accepted by IEEE ISIT 2021.
- (C.1) Two-tone Shift-XOR storage codes. Ximing Fu, Chenhao Wu, **Yuanxin Guo**, Shenghao Yang. Accepted by IEEE ISIT 2021
- (P.1) A Distributed Storage and Transmission Decoding [publicized]. Ximing Fu, **Yuanxin Guo**, Shenghao Yang. Publication number: CN 111447044 A

EXTRACURRICULAR ACTIVITIES

Student Assistant

Office of Academic Links, CUHK(SZ), Sept. 2019 - Dec. 2019

Student Assistant

Institute of Data and Decision Analytics, CUHK(SZ), Nov. 2018 - Sept. 2019