

CHIH-CHENG REX YUAN

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EDUCATION

National Taiwan Normal University

2014 - 2019

B.S. in Computer Science and Information Engineering

EXPERIENCE

Institute of Information Science, Academia Sinica

2019 - Present

Research Assistant

- Developed bit-level hardware verification safety algorithm based on algorithmic boolean learning and interpolation.
- implemented AIG input parser, C++ minisat API, memory arena, and custom profiling and logging.
- Worked on algorithmic learning such as order-theoretical version space learning, automata L^* regular language learning, and monotone-theoretical CDNF boolean function learning.
- Worked on formal methods such as syntax-guided program synthesis, counterexample-guided abstraction refinement, and bounded temporal unrolling.
- Worked on logical theories such as propositional Craig interpolation, boolean theory, and boolean analysis.

Institute of Information Science, Academia Sinica

2017 – 2019

Adjunct Research Assistant

- SAT-solving reduction of poset cover problem for message sequence chart synthesis implemented in Python with z3.
- NP-hardness of k-anonymity checking problem and a randomized approach thereof for the 2010 Taiwanese census data implemented in Python with MySQL.
- Worked on connection between order theory and language theory, proving that between permuted linearizations and Myhill-Nerode theorem.
- Worked on de-identification techniques such as ℓ -diversity, t -closeness, and δ -presence.
- Worked on differential privacy framework in Pufferfish.
- Worked on probabilistic programming in WebPPL.

Inside.com.tw

2016

Software Engineering Intern

- Backend Wordpress theme development; collaboration and communication with frontend team.
- In-house editor user-interface feature requests for editorial team.

Inside.com.tw

2015

Editorial Intern

- Coverage, interviewing, and reporting on technology and startup related scenes.

AWARDS & CERTIFICATES

Academic Excellence Award

2016

Ranked top 5% in a class

TOEFL iBT

2016

Score: 108 (Reading: 29 / Listening: 30 / Speaking: 22 / Writing: 27)

TOEIC

2013

Score: 960