

# JIALUN CAO

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Github: <https://github.com/ArabelaTso>

## EDUCATIONAL BACKGROUND

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### The Hong Kong University of Science and Technology

Sep 2019 – Present

- Department of Computer Science and Engineering
- **Supervisor:** Shing-Chi CHEUNG
- **Research area:** deep learning system analysis, testing and debugging

### M.S., University of Chinese Academy of Sciences

Sep 2016 – Sep 2019

- State Key Laboratory of Computer Science, Institute of Software, Chinese Academy of Sciences
- **Supervisor:** Yongjian LI
- **Major:** Computer Software and Theory
- **CGPA:** 88.31 (**Rank: 2 / 106, Top 2%**)

### B.S., Shandong University

Sep 2012 - Jun 2016

- School of Mechanical, Electrical & Information Engineering, Computer Science Department
- **Major:** Digital Media Technology
- **CGPA:** 89.57 (**Rank: 2 / 52, Top 4%**)

## HONORS AND AWARDS

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- 2019 – 2021 Huawei Fellowship Scholarship
- 2017 China National Scholarship (**Postgraduate, Rank 1/106, Top 1%**)
- 2014 China National Scholarship (**Undergraduate, Rank 1/52, Top 2%**)
- 2016 – 2019 First-class Academic Scholarship (**Postgraduate, Top 10%**)
- 2012 – 2016 First Prize Scholarship (**Top 10%**)
- 2012 – 2016 Merit Student (**Top 4%**)
- 2016 Alibaba Tianchi & CCF Contest (**Rank 13/2845, Top 0.46%**)
- 2015 1st Place Award: Imagine Cup Competition, International Microsoft Program

## PUBLICATIONS (In chronological order)

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[TOSEM 2021] CCF-A

**SemMT: A Semantic-based Testing Approach for Machine Translation Systems**

Jialun CAO, Meiziniu LI, Yeting Li, Ming WEN, Shing-Chi CHEUNG, Haiming CHEN

[USENIX Security 2021] CCF-A

**ReDoSHunter: A Combined Static and Dynamic Approach for Regular Expression DoS Detection.**

Yeting LI, Zixuan CHEN, **Jialun CAO**, Zhiwu XU, Qiancheng PENG, Haiming CHEN, Liyuan CHEN, Shing-Chi CHEUNG

**[ICSE 2021]** **CCF-A**

**TransRegex: Multi-modal Regular Expression Synthesis by Generate-and-Repair.**

Yeting LI, Shuaimin LI, Zhiwu XU, **Jialun CAO**, Zixuan CHEN, Yun HU, Haiming CHEN, Shing-Chi CHEUNG.

**[ASE 2020]** **CCF-A**

**FlashRegex: Deducing Anti-ReDoS Regexes from Examples.**

Yeting LI, Zhiwu XU, **Jialun CAO**, Haiming CHEN, Tingjian GE, Shing-Chi CHEUNG, Haoren ZHAO

**[ICDE 2020]** **CCF-A**

**FlashSchema: Achieving High Quality XML Schemas with Powerful Inference Algorithms and Large-scale Schema Data.**

Yeting LI, **Jialun CAO**, Haiming CHEN, Tingjian GE, Zhiwu XU, Qiancheng PENG

**[DASFFA 2019]** **CCF-B**

**A Learning-Based Framework for Automatic Parameterized Verification.**

Yongjian LI, **Jialun CAO (1st student author)**, Jun PANG

**[ICCD 2019]** **CCF-B**

**A Learning-Based Framework for Automatic Parameterized Verification.**

Yongjian LI, **Jialun CAO (1st student author)**, Jun PANG

**[ASE 2018]** **CCF-A**

**L-CMP: an automatic learning-based parameterized verification tool.**

**Jialun CAO**, Yongjian LI, Jun PANG

**[QRS 2018]** **CCF-C**

**An Automatic Parameterized Verification of FLASH Cache Coherence Protocol.**

Yongjian LI, **Jialun CAO (1st student author)**, Kaiqiang DUAN

## **TEACHING EXPERIENCE**

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HKUST COMP3021 Java Programming, Spring 2020. Teaching Assistant.

HKUST COMP3021 Java Programming, Fall 2020. Teaching Assistant.