JIALUN CAO

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EDUCATIONAL BACKGROUND

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

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)

[ASE 2021 Submitted]   **CCF-A**

DeepFD: Automated Fault Diagnosis and Localization for Deep Learning Programs

Jialun CAO, Meiziniu LI, Xiao CHEN, Yongqiang TIAN, Ming WEN, Bo WU, Shing-Chi CHEUNG

[TOSEM 2021 Under Revision]   **CCF-A**

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

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

[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

[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

HKUST COMP3021 Java Programming, Spring 2020. Teaching Assistant.
HKUST COMP3021 Java Programming, Fall 2020. Teaching Assistant.