Sidong Feng

https://sidongfeng.github.io

Research Interests

User interface design, understanding, programming and testing

Education

- **Monash University** — Melbourne, AU
  Philosophy of Doctor; Full Scholarship — *Apr. 2023 -*
- **Australian National University** — Canberra, AU
  Bachelor of Software Engineering (Honors) — *Feb. 2016 – Dec. 2019*

Publications

Journal Papers:

- **S. Feng**, M. Jiang, T. Zhou, Y. Zhen, C. Chen. "Auto-Icon+: An Automated End-to-End Code Generation Tool for Icon Designs in UI Development", [**TiiS 2022**]

Conference Papers:

- **S. Feng**, C. Chen. "Prompting Is All You Need: Automated Android Bug Replay with Large Language Models", [**ICSE 2024 (CORE A*)**]
- **S. Feng**, C. Chen, Z. Xing. "Video2Action: Reducing Human Interactions in Action Annotation of App Tutorial Videos", [**UIST 2023 (CORE A*)**]
- J. Chen, J. Sun, **S. Feng**, Z. Xing, Q. Lu, X. Xu, C. Chen. "Unveiling the Tricks: Automated Detection of Dark Patterns in Mobile Applications", [**UIST 2023 (CORE A*)**]
- **S. Feng**, H. Lu, T. Xiong, Y. Deng, C. Chen. "Towards Efficient Record and Replay: A Case Study in WeChat", [**ESEC/FSE 2023 Industry (CORE A*)**]
- **S. Feng**, M. Xie, C. Chen. "Efficiency Matters: Speeding Up Automated Testing with GUI Rendering Inference", [**ICSE 2023 (Distinguish) (CORE A*)**]
- **S. Feng**, M. Xie, Y. Xue, C. Chen. "Read It, Don't Watch It: Captioning Bug Recordings Automatically", [**ICSE 2023 (CORE A*)**]
- M. Xie, Z. Xing, **S. Feng**, C. Chen, L. Zhu, X. Xu. "Psychologically-Inspired, Unsupervised Inference of Perceptual Groups of GUI Widgets from GUI Images", [**ESEC/FSE 2022 (CORE A*)**]
- **S. Feng**, C. Chen. "GIFdroid: Automated Replay of Visual Bug Reports for Android Apps", [**ICSE 2022 (CORE A*)**]
- **S. Feng**, S. Ma, J. Yu, T. Zhou, Y. Zhen. "Auto-icon: An Automated Code Generation Tool for Icon Designs Assisting In UI Development", [**IUI 2021 (CORE A)**]
- C. Chen, **S. Feng**, Z. Liu, Z. Xing, S. Zhao. "From Lost to Found: Discover Missing UI Design Semantics through Recovering Missing Tags", [**CSCW 2020 (CORE A)**]
- **S. Feng**. "Dynamic Facial Stress Recognition in Temporal Convolutional Network", [**ICONIP 2019 (CORE A)**], in conjunction with ANU Bio-inspired Computing conference [**ABCs 2019**]
- C. Chen, **S. Feng**, Z. Xing, L. Liu, S. Zhao, J. Wang. "Gallery D.C.: Design Search and Knowledge Discovery through Auto-created GUI Component Gallery", [**CSCW 2019 (CORE A)**]

Short Papers:

- **S. Feng**, C. Chen. "GIFdroid: An Automated Light-weight Tool for Replaying Visual Bug Reports", [**ICSE 2022 (CORE A*)**].
- **S. Feng**, C. Chen, Z. Xing. "Gallery D.C.: Auto-created GUI Component Gallery for Design Search and Knowledge Discovery", [**ICSE 2022 (CORE A*)**].
- M. Xie, **S. Feng**, Z. Xing, J. Chen, C. Chen. "UIED: a hybrid tool for GUI element detection", [**ESEC/FSE 2020 (CORE A*)**].

Services

- Program Committee in MobileSoft 2023
- Program Committee in ASE 2023 (Workshop on Human Centric Software Engineering and Cyber Security)
- Program Committee in ICONIP 2023
- Reviewer in IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- External reviewer in CHI 2023, 2024
- External reviewer in UIST 2023
- External reviewer in MobileHCI 2022
- Volunteer in United Nations International Children's Emergency Fund 2022
- Student volunteer in ASE 2021
- Selected panelist in ESEC/FSE 2020

Experience

- **University of Science and Technology of China** Suzhou, CN
  Research Assistant Intern *Jun 2022 - Apr 2023*
  - **App testing**: Develop an intelligent way based on UI understanding to help developers for app testing.
- **Alibaba Group** Hangzhou, CN
  Research Intern *Aug 2020 - Feb 2021*
  - **Code generation**: Develop deep-learning based techniques to generate readable and efficient code for icons.
- **National University of Singapore (NUS) Research Institute** Suzhou, CN
  Research Assistant Intern *Apr 2020 - Aug 2020*
  - **Past exams practice**: Develop segmentation models to remove handwritten answers from student exam papers.

Awards

- ACM SIGSOFT Distinguished Paper Award [in ICSE 2023]
- Selected Fully Funded PhD for Summer School in Computer Science and AI (ISAAC) [at Monash]
- Top 5 Award in Innovation ACT 2018 (with $8,750 grant) [at Civilise.ai]
- "Start-up of the Year" award in the Digital Canberra iAwards 2018 [at OK RDY]
- 1st student graduated from high school [at BMGS high school]
- Top 20% in Australian CommonWealth Mathematics Competition [at BMGS high school]

Assistive Teaching

- FIT5126 "Masters thesis project" [at Monash] *2023*
- FIT4701 "Software engineering final year project" [at Monash] *2023*
- FIT2082 "Computer science research project" [at Monash] *2023*
- Winter vacation research program [at Monash] *2023*
- COMP4540 "Software engineering research project" [at ANU] *2023*
- Summer vacation research program [at Monash] *2022*
- FIT4003 "Software engineering research project" [at Monash] *2022*
- FIT4441 "Honours degree project" [at Monash] *2022*
- FIT3144 "Advanced computer science research project" [at Monash] *2022*
- FIT3170 "Software engineering practice" [at Monash] *2021*

Personal

- Paper art design, Certified skydiver, SSI water diver, Amateur Go rank 2 dan