

RESEARCH INTERESTS

User interface design, understanding, programming and testing

EDUCATION

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

EXPERIENCE

- **University of Science and Technology of China** Suzhou, CN
Research Assistant Intern *Jun 2022 - Present*
 - **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 for icon designs:** Develop machine-learning and deep-learning based techniques to generate readable and efficient code for icons from the design artifacts.
 - **UI layout grouping:** Develop a heuristic-based recursive traversing algorithm to infer the association relationship between UI elements.
- **National University of Singapore (NUS) Research Institute** Suzhou, CN
Research Intern *Apr 2020 - Aug 2020*
 - **Real-time water pollution:** Propose a fast scene parsing model mounted on self-driving UAV for segmenting algae region and measuring water pollution.
 - **Practice for student past exams:** Propose a text-shape-recognized segmentation model to remove the handwritten answers from the past exam papers.
- **Yisheng Leju Company** Suzhou, CN
UI Developer Intern *Nov 2018 - Feb 2019*
 - **Interface Design:** Designed the product application, guidelines and UI specification.
 - **Human-Computer Interaction:** Repeatedly elicited users' feedback about experiences with prototyped design.
 - **Bug Testing:** Profiled, troubleshoot and fixed bugs for the high-volume internal web application.
 - **System Improvement:** Improved code readability and performance by reviewing the quality of code.
- **Civilise.ai** Canberra, AU
Software Developer Intern *Jul 2018 - Nov 2018*
 - **Data Preprocessing:** Developed CV modules to detect regions of change in satellite images at different time.
 - **Deep Learning:** Built a convolutional neural network to classify regions of change, and achieves 92% accuracy.
 - **Data Visualization:** Performed GIS operations on heatmap to cluster high concentration of property revolution.
 - **Software Documentation:** Constructed concise burndown chart, user story map, risk register and decision log.
- **OK RDY** Canberra, AU
Software Developer Intern *Feb 2018 - Jul 2018*
 - **Mobile Application:** Designed interface and implemented functionalities (malicious reporting, message system)
 - **Bugs Testing:** Applied Jira for bug tracking, led team to fix bugs through unit test in mentor-matching app.
- **China Life** Suzhou, CN
Software Developer Intern *Nov 2017 - Feb 2018*
 - **Software Management:** Responsible for debugging and repairing coding issues for application.
 - **Cross-browser Compatibility:** Re-factored functionalities and CSS for websites to ensure compatibility.
- **Building and Construction Council** Suzhou, CN
Civil Analyst Intern *Nov 2016 - Feb 2017*
 - **Building Coordination:** Assisted miscellaneous projects as assigned to insure a successful boutique opening.
 - **Progress Report:** Provided status reports to senior management to keep them apprised of progress.

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:

- 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”, [Highlights in 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

- Junior PC in MSR 2023
- External reviewer in CHI 2023
- External reviewer in MobileHCI 2022
- Student volunteer in ASE 2021
- Selected panelist in ESEC/FSE 2020

AWARDS

- Selected Fully Funded PhD for Summer School in Computer Science and AI (ISAAC) [at Monash]
- Selected Alibaba Global Talent Development Program [at Alibaba]
- Top solution in AI project of Smart City in Suzhou park (obtained \$120,000 project investment). [at NUSRI]
- Selected Engineers Australia (EA) for graduates [at ANU]
- Top 5 Award in Innovation ACT 2018 (with \$8,750 grant). [at Civilise.ai]
- Commercial cooperation with the Queanbeyan council, NSW, Australia. [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

- Co-supervisor in “Summer vacation research program” [at Monash] 2022
- Co-supervisor in FIT4003 “Software engineering research project” [at Monash] 2022
- Co-supervisor in FIT4441 “Honours degree project” [at Monash] 2022
- Co-supervisor in FIT3144 “Advanced computer science research project” [at Monash] 2022
- Co-supervisor in FIT3170 “Software engineering practice” [at Monash] 2021

PERSONAL

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