

# HONGXIANG ZHANG

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## EDUCATION BACKGROUND

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<b>University of California, Davis</b> (GPA: 3.9/4.0) Master of Science, Computer Science	Sep 2022 - Present
<b>Australian National University</b> Bachelor of Engineering (Honours), Computer Science	Jul 2020 - Sep 2022
<b>Shandong University</b> Bachelor of Engineering, Computer Science	Sep 2018 - Jun 2022

## ACADEMIC EXPERIENCE

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<b>SteerDiff: Steering towards Safe Text-To-Image Diffusion Model</b> <a href="https://arxiv.org/abs/2410.02710">https://arxiv.org/abs/2410.02710</a> <ul style="list-style-type: none"><li>SteerDiff efficiently identifies and transforms inappropriate concepts within the embedding space of input prompts while preserving the original semantics.</li><li>SteerDiff functions as a lightweight plug-in between the text encoder and diffusion model, fully maintaining the generation capabilities of diffusion models.</li><li>SteerDiff can be easily applied to other related tasks, such as concept removal, with minimal training steps.</li></ul>	Jun 2024 - Oct 2024
<b>LLAMAFUZZ: Large Language Model Enhanced Greybox Fuzzing</b> <a href="https://arxiv.org/abs/2406.07714">https://arxiv.org/abs/2406.07714</a> <ul style="list-style-type: none"><li>Utilizing an LLM-enhanced mutation strategy that can be applied to both binary-based and text-based data formats with only steps of fine-tuning.</li><li>Proposing a solution between the generic fuzzer and the specialized fuzzer, that can learn structured seed patterns and mutate structured seeds.</li><li>Visually accommodates experimental explanations to illustrate how LLM augments the fuzzing process.</li></ul>	Feb 2023 - Jun 2024

## WORK AND TEACH EXPERIENCE

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### Teaching Assistant UC Davis

- ECS 153 Computer Security
- ECS 36C Data Structure, algorithms and analytics
- ECS 140 Programming Language

### Software and Operation Engineer Intern Volkswagen, Beijing, China

Feb 2022 - Jul 2022

- Achieved data masking and auto-populated to **JIRA** log in Python.
- Intuitively analyzed and provided services and finance data to CIO with **Tableau**, helping the management level adjust the company service strategy agilely.

### Quality Assurance Intern Didi Global, Beijing, China

Dec 2020 - Feb 2021

- Developed distributed Java invoice services to enable the interaction between server and end-user devices that served more than 1 million users per day.
- Achieved unit testing automation by using **JUnit** and the test case in **Redis**, reduced over 15% of the testing engineer's workload.