curriculum vitæ of

Siyuan Qian

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EDUCATION

Sept. 2020 – June 2024	**B.S.** in Computer Engineering	UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN (UIUC)
Sept. 2020 – June 2024	**B.Eng.** in Computer Engineering	ZHEJIANG UNIVERSITY (ZJU)

PUBLICATIONS

CONFERENCE AND JOURNAL PUBLICATIONS

1. **Synthesizing Precise Static Analyzers for Automatic Differentiation.**
   Jacob Laurel, **Siyuan Brant Qian**, Gagandeep Singh, Sasa Misailovic.
   In 38th *ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages and Applications* (**OOPSLA 2023**), Cascais, Portugal, October 2023.

WORKSHOP PUBLICATIONS

2. **Abstract Interpretation for Automatic Differentiation.**
   Jacob Laurel, **Siyuan Brant Qian**, Gagandeep Singh, Sasa Misailovic.
   In 10th *Workshop on Languages for Inference at POPL 2024* (**LAFI 2024**), London, UK, January 2024.

RESEARCH EXPERIENCE

Spring 2023 – Fall 2023	**Undergraduate Research Assistant**	UIUC ARC GROUP & FOCAL LAB

Advised by Prof. Sasa Misailovic and Prof. Gagandeep Singh.

- Worked with Jacob Laurel, Prof. Gagandeep Singh, and Prof. Sasa Misailovic on Static Analysis of Differentiable Programs.

- Helped develop PASADO, a technique for synthesizing precise static analyzers for Automatic Differentiation. Helped with PASADO implementation, evaluated PASADO on multiple benchmarks to show its precision, generality, and scalability. **Coauthored on 1 and 2.**

HONORS & AWARDS

Fall 2022	Dean's List	UIUC
Fall 2020 – Spring 2023	Departmental Scholarship (CNY 10000) $\times$ 3	ZJU
Fall 2020 – Spring 2022	Dean's List $\times$ 2	ZJU

TEACHING EXPERIENCE

Fall 2023	**Teaching Assistant** for UIUC ECE 220 (Computer Systems & Programming, ZJUI Section)	ZJU
Spring 2023	**Course Assistant** for UIUC ECE 391 (Computer Systems Engineering)	UIUC
Spring 2023	**Grader** for UIUC ECE 210 (Analog Signal Processing)	UIUC

SKILLS

Programming Languages:	(CUDA) C++, C, Rust, Python, OCaml, SQL, x86 assembly RISC-V assembly, MATLAB, Java, Javascript, CSS, HTML, R
Packages & Tools:	Docker, Git, SVN, MySQL, MongoDB, Neo4j, PyTorch, Pandas Numpy, scikit-learn