# Jingyuan Zhu

734-353-1898 | jingyz@umich.edu | github.com/JingyZhu

## RESEARCH INTERESTS

My research interests are mainly in the Web. Specifically, I'm interested in studying broken links on the web and deriving different solutions to mitigate link rot over time.

## EDUCATION

**University of Michigan**, Ann Arbor, MI
*Ph.D* in Computer Science — Sep 2019 – Oct 2025

**University of Michigan**, Ann Arbor, MI
*M.S.E* in Computer Science — Sep 2019 – Apr 2022

**University of Michigan**, Ann Arbor, MI — GPA: 3.9/4.0
*B.S.E* in Computer Science (Dual Degree) — Sep 2017 – Apr 2019

**Shanghai JiaoTong University**, Shanghai, China — GPA: 3.6/4.0
*B.S.E* in Electrical & Computer Engineering (Dual Degree) — Sep 2015 – Aug 2019

## WORK EXPERIENCE

**Meta** — Menlo Park, CA
*Software Engineer Intern* — *May-Aug 2024*

**LLM Runtime Benchmark Framework**

- Built a benchmark framework for measuring performance across various components of Llama's inference runtime.
- Integrated this benchmark into Meta's performance testing platform, enabling the detection of an actual performance regression triggered by specific code changes.
- Utilized the benchmark framework for detailed performance analysis. Pinpointed bottlenecks in real-world runtime instructed by theoretical analysis.

**Google** — Seattle, WA
*Software Engineer Intern* — *May-Aug 2023*

**Critical Path Aggregation and Visualization for Chrome**

- Derived and implemented a novel algorithm to aggregate critical paths for Chrome page navigation traces. Implemented a clear and informative interactive visualization using D3.
- Designed and developed a "what-if" analysis method for Chrome, offering an actionable estimation to pinpoint high-value optimization opportunities.
- Applied the aggregation on hundreds of Chrome traces, identifying speedup potential for 1,000+ tasks and aiding optimization prioritization.

## PUBLICATIONS

**Detecting and Diagnosing Errors in Replaying Archived Web Pages**
Jingyuan Zhu, Huanchen Sun, Harsha V. Madhyastha
Submitted to NSDI'26

**Toward Better Efficiency vs. Fidelity Tradeoffs in Web Archives**
Jingyuan Zhu, Huanchen Sun, Harsha V. Madhyastha
ACM Internet Measurement Conference 2025 (IMC'25)

**Sprinter: Speeding Up High-Fidelity Crawling of the Modern Web**
Ayush Goel, Jingyuan Zhu, Ravi Netravali, Harsha V. Madhyastha
21st USENIX Symposium on Networked Systems Design and Implementation (NSDI'24)

**Reviving Dead Links on the Web with FABLE**
Jingyuan Zhu, Anish Nyayachavadi, Jiangchen Zhu, Vaspol Ruamviboonsuk, Harsha V. Madhyastha
ACM Internet Measurement Conference 2023 (IMC'23)

**Making Links on Your Web Pages Last Longer Than You**

Ayush Goel, Jingyuan Zhu, Harsha V. Madhyastha

HotNets 2022: Twenty-First ACM Workshop on Hot Topics in Networks (HotNets'22)

**Characterizing "Permanently Dead" Links on Wikipedia**

Anish Nyayachavadi, Jingyuan Zhu, Harsha V. Madhyastha

ACM Internet Measurement Conference 2022 (IMC'22)

**Jawa: Web Archival in the Era of JavaScript**

Ayush Goel, Jingyuan Zhu, Ravi Netravali, Harsha V. Madhyastha

16th USENIX Symposium on Operating Systems Design and Implementation (OSDI'22)

**Cloud Video Transcoding Performance Characterization**

Yuhan Chen, Jingyuan Zhu, Tanvir Ahmed Khan, Baris Kasikci

2020 IEEE International Workshop/Symposium on Workload Characterization (IISWC'20)

## Teaching Experience

**University of Michigan**                     Jan 2021 - Apr 2021, Sep 2021 - Dec 2021

*Graduate Student Instructor*

- Instructed class EECS 491: Distributed Systems.
- Responsible for teaching lab section. Involved in the creation and grading of exams.

## Honors and Awards

Patent (CN106175608): Intelligent stair sweeping robot and its control method and control system

Dean's Honor List. University of Michigan                     Fall 2017 - Winter 2019, Every semester

Mechanical competition Champion. Shanghai JiaoTong University                     Fall 2016