# XIANGFENG(ALLEN) ZHU

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#### **EDUCATION**

## University of Michigan, Ann Arbor

Bachelor of Science, Computer Science

Expected: May 2020 GPA:4.0/4.0

## **EXPERIENCES**

#### **Dropbox** San Francisco, CA

May. 2019

Incoming Software Engineer Intern

• Will be working in Dropbox's Cloud File System team as a Software Engineer intern starting May 2019

## Software Systems Lab University of Michigan

Nov. 2018 - Present

Research Assistant Advisor: Prof. Mosharaf Chowdhury

- Co-developing a general-purpose execution engine, Sol, that can adapt to diverse network conditions on top of Apache Spark.
- Improved SQL, machine learning, and streaming jobs by 4.2× and 16.4× on average, respectively, in offline and online settings compared to Apache Spark in resource-constrained networks.

#### **Disorderly Lab** UC Santa Cruz

Mar. 2018 - Sep. 2018

Undergraduate Researcher Advisor: Prof. Peter Alvaro

- Developed a debugging approach based on analysis of provenance data obtained during system executions equipped with correctness specifications
- Helped Design a standalone prototype Debugger Nemo and validated Nemo on protocols from real-world distributed bugs

## ♥ Projects

#### Distributed Debugger Using Provenance Graph (Go)

Mar. 2018 - Aug. 2018

• Designed a lineage-driven distributed debugger(Nemo) with graduate students that can analyze the program and give suggestions to the programmer how and where to correct the program

### Fault-tolerant Scalable Key-Value Store (Python)

Jan. 2019 - Mar. 2018

• Developed a distributed, fault-tolerant key-value store that can store the amount of data that cannot fit into one single machine, using consistent hashing

#### **i** Publication

 Lennart Oldenburg, Xiangfeng Zhu, Kamala Ramasubramanian, Peter Alvaro, "Fixed It For You: Protocol Repair Using Lineage Graphs", Proceedings of the 9th biennial Conference on Innovative Data Systems Research (CIDR 19), Asilomar, CA, 2019

## SKILLS

- Language: Java, C, C++, Python, Scala, MATLAB, Bash, SQL, HiveQL, HTML, CSS, LATEX, Go(Limited), JavaScript(Limited)
- Tool: Perf, Valgrind, Git, Vim, Docker, Xcode, Flask
- Data: Oracle, MySQL, Neo4j, Hadoop, Hive, Spark, Flink