

# XIANGFENG(ALLEN) ZHU

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## 🎓 EDUCATION

**University of Michigan**, Ann Arbor Expected: May 2020  
*Bachelor of Science*, Computer Science GPA:4.0/4.0

## 👥 EXPERIENCES

**Dropbox** San Francisco, CA May. 2019  
*Incoming Software Engineer Intern*

- Will be working in Dropbox's Filesystem 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

## 📖 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,  $\text{\LaTeX}$ , Go(Limited), JavaScript(Limited)
- Tool: Perf, Valgrind, Git, Vim, Docker, Xcode, Flask
- Data: Oracle, MySQL, Neo4j, Hadoop, Hive, Spark, Flink