Xiangfeng(Allen) Zhu

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Education

University of Michigan, Ann Arbor — Expected: May 2020
Bachelor of Science, Computer Science — GPA:3.92/4.0

Experiences

Dropbox San Francisco, CA — May. 2019 - Now
Software Engineer Intern

- Working in Dropbox's Filesystem team as a Software Engineer intern

Software Systems Lab University of Michigan — Nov. 2018 - Now
Research Assistant Advisor: Prof. Mosharaf Chowdhury

- Co-developed 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 - Now
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, eventually consistent key-value store that can store the amount of data that cannot fit into one single machine.

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