Present:
Ann Arbor, Michigan

Ben Reeves

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Permanent:
Naperville, Illinois

EDUCATION

University of Michigan Rackham Graduate School **Expected December 2019**
Ann Arbor, Michigan
Master of Science in Engineering: Computer Science and Engineering

University of Michigan College of Engineering **December 2018**
Ann Arbor, Michigan *Summa Cum Laude*
Bachelor of Science in Engineering: Computer Science

EXPERIENCE

Qumulo — Seattle, Washington **Summer 2019**
Software Engineer Intern *C, Python*

As part of my team's effort to modify the on-disk directory encoding in our distributed file system, I…
- Improved cluster formation time by altering the behavior of a central coordinator, reducing writes to disk by 100x.
- Implemented a new replication algorithm so that cross-cluster replication would still be backwards compatible.
- Implemented a file system function to allow lookup of multiple files within a single transaction, significantly reducing the number of network operations required during replication.

Relativity — Chicago, Illinois **Summer 2018**
Software Engineer Intern *Scala, Java, C#*

As part of my team's initiative to rearchitect our monolithic document analytics engine, I…
- Wrote Scala code to automatically deploy end-to-end tests using Kubernetes.
- Investigated the feasibility and business value of incorporating Azure Machine Learning products into our engine.
- Audited an external dependency of the text ingestion pipeline, performing A/B tests to see if it could be removed.

University of Michigan College of Engineering — Ann Arbor, Michigan **2018 — Present**
Graduate Student Instructor — Intro Operating Systems *C++, C*

As the head GSI for one of the most intensive upper-level CS courses at Michigan, I…
- Teach weekly lab sections and hold office hours to assist students in debugging and understanding the course projects, consistently earning 95% positive student feedback.
- Consult with course professors to write exams and improve/maintain project infrastructure code.

University of Michigan Transportation Optimization Lab — Ann Arbor, Michigan **2015 — 2017**
Full-Stack, Mobile, and Visualizations Developer *JavaScript, Java, Python*

As a part of the lab's initiative to improve campus mobility and transportation, I…
- Wrote Android code for the official University of Michigan mobile app to support location tracking, which enabled our lab to collect mobility data from more than 500 students and faculty on campus.
- Developed a Dockerized backend stack to ingest this data using Java Spring, Redis, Node.js, and MongoDB.
- Designed compelling data visualizations in JavaScript that allowed us to better understand our data.

PROJECTS

TCP Connection Migration in the Linux Kernel **2019**
Modified the Linux kernel TCP stack to develop a proof-of-concept implementation of TCP connection migration, allowing an application to be checkpointed and restored on a different machine without dropping TCP connections.

SKILLS

Technical
- Highly skilled: C++, Python, C, JavaScript
- Experienced: Java, Scala, MATLAB, Java, C#
- Cloud tools: Azure, Docker, Kubernetes, AWS

Personal
- Gifted at teaching and conveying technical information
- Extremely fast at learning new topics and systems
- Effective at conflict resolution