

BENJAMIN REIDYS

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RESEARCH INTERESTS

Memory and Storage Systems, Data Center Architecture, Machine Learning for Systems

EDUCATION

University of Illinois at Urbana-Champaign

August 2020 - Present

PhD in Computer Science

Advised by Dr. Jian Huang

Virginia Tech

August 2016 - May 2020

Dual Bachelors of Science in Computer Science and Mathematics

Overall GPA: 3.96/4.00

PROJECTS

Distributed Data Persistency

- This paper introduces distributed data persistency which merges existing distributed consistency and memory persistency models. For each model, we propose a protocol and analyze the tradeoffs.

Managing Persistent Objects Across Managed Runtimes for NVM

- This paper presents a framework that allows adding persistence to any managed runtime with minimal effort. In addition to persistence, it allows the sharing of objects across runtimes with low overhead.

PUBLICATIONS

Distributed Data Persistency. Apostolos Kokolis, Antonis Psistakis, **Benjamin Reidys**, Jian Huang, Josep Torrellas. In *Proceedings of the 54th IEEE/ACM International Symposium on Microarchitecture (MICRO '21)*.

Uniheap: Managing Persistent Objects Across Managed Runtimes for Non-Volatile Memory. Daixuan Li, **Benjamin Reidys**, Jinghan Sun, Thomas Shull, Josep Torrellas, Jian Huang. In *Proceedings of the 14th ACM International System and Storage Conference (SYSTOR '21)*.

HONORS AND AWARDS

- Phi Beta Kappa Membership (Spring 2018)
- Robert Earl Spencer and Dr. Herbert Earl Spencer Scholarship (2018-19)
- CS Junior Scholar Award (Spring 2019)
- CS Sophomore Scholar Award (Spring 2018)
- Dean's List with Distinction (Every semester except Spring 2019)
- Computer Science Research Consortium Scholarship (2017-18)
- Investment in Excellence Scholarship (2018-18)
- Pratt Engineering Scholarship (Spring 2017)

WORK EXPERIENCE

Systems Platform Research Lab
Graduate Research Assistant

May 2020 - Present
Urbana, IL

Virginia Tech CS 3214: Introduction to Operating Systems
Undergraduate Teaching Assistant

August 2019 - May 2020
Blacksburg, VA

- Hosted office hours answering student questions and helping students with debugging project code.

Network Dynamical Systems and Simulation Science Laboratory
Undergraduate Research Assistant

August 2016 - May 2018
Blacksburg, VA

- Developed an architecture for scraping periscope streams from Twitter as data collection.

Los Alamos National Laboratory CCS-3 Group
Intern

Summers 2015-17 and 2020
Los Alamos, NM

- Benchmarked the Simian and ROSS parallel discrete event simulators.
- Implemented HPC benchmarks for the Performance Prediction Toolkit.

PROGRAMMING ACTIVITIES

- **International Collegiate Programming Contest (ICPC) (2018-20)**
 - 56th of 117 teams at the 2021 ICPC World Finals
 - 21st of 59 teams at the 2020 North American Championship
 - 5th of 160 teams at the 2019 MidAtlantic Regional Contest
 - 30th of 183 teams at the 2018 MidAtlantic Regional Contest