Tyler R. Caraza-Harter

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Education

2016	PhD in Computer Science Advisors: Professor Andrea Arpaci-Dusseau Professor Remzi Arpaci-Dusseau	University of Wisconsin-Madison
2012	Masters in Computer Science	University of Wisconsin-Madison
2010	Bachelors in Computer Science and Math	University of Wisconsin-Madison

Work History

- **University of Wisconsin-Madison**: Teaching Faculty (2018 to present)
- **Microsoft**: Scientist at Gray Systems Lab (2016 to 2018)
- **University of Wisconsin-Madison**: Instructor for CS 537, Intro to OS (Spring 2016)
- **Tintri**: Summer Intern (2015)
- **University of Wisconsin-Madison**: Instructor for CS 537, Intro to OS (Fall 2014)
- **Facebook**: Summer Intern (2012, 2013)
- **Google**: Summer Intern (2011)
- **Qualcomm**: Summer Intern (2010)
- **Dairyland Power**: Summer Intern (2006, 2007, 2008)

Teaching History (2700 students total)

- **2022 Spring**: CS 320 Data Sci Programming II (395 students); Directed Study (7 students)
- **2021 Fall**: CS 320 Data Sci Programming II (322 students); Directed Study (3 students)
- **2021 Spring**: CS 320 Data Programming II (268 students); Directed Study (5 students)
- **2020 Fall**: CS 320 Data Programming II (127 students); CS 638 DS in WI (18 students)
- **2020 Spring**: CS 320 Data Programming II (116 students)
- **2019 Fall**: CS 301 Intro Data Programming (598 students); CS 638 DS in Madison (17 students)
- **2019 Spring**: CS 301 Intro Data Programming (375 students); Directed Study (10 students)
- **2018 Fall**: CS 301 Intro Data Programming (316 students)
- **2016 Spring**: CS 537 Intro to Operating Systems (48 students), Epic Campus
- **2014 Fall**: CS 537 Intro to Operating Systems (75 students)

Professional Activities

- Data Science Program Committee (DSPC) member (Fall 2021 to present)
- dotData (UW-Madison Data Science Club) faculty advisor (Spring 2021 to present)
- DS Bazaar Research Bazaar: led *Data Science for Cities* interactive discussion (February 2021)
- PC for 7th Workshop on Serverless Computing (December 2021)
- DS Bazaar Research Bazaar: led *Data Science in the City of Madison* session (January 2020)
- PC for 5th Workshop on Serverless Computing (December 2019)
- PC for 4th Workshop on Serverless Computing (December 2018)
- PC for 3rd Workshop on Serverless Computing (July 2018)
- PC for 2st Workshop on Serverless Computing (December 2017)
- PC for 1st Workshop on Serverless Computing (June 2017)

Awards and Recognition

- SOSP Best Paper: *A File is Not a File...*
- Guri Sohi Fellowship
- Facebook Fellowship
- NSF Fellowship
- Course highlighted in Capital Times article: *'Data Science in Madison' class offers UW students 'real world' projects*
- Nominated as an Honored Instructor (University Housing) (http://www.housing.wisc.edu/academics/honoredinstructors.htm)
- UW-Madison CS Departmental Golden Brick Recognition (2021, 2022)
- U.S. Patent 7,613,619: *Method for identifying allergens...*
- U.S. Patent 10,430,378: *Fast container distribution with storage acceleration*

Publications (1480 citations total – Google Scholar)

Anjali, **Tyler Caraza-Harter**, Michael Swift. Blending Containers and Virtual Machines: A Study of Firecracker and gVisor.	**VEE 2020**
Ethan G Young, Pengfei Zhu, **Tyler Caraza-Harter**, Andrea C Arpaci-Dusseau, Remzi H Arpaci-Dusseau. The True Cost of Containing: A gVisor Case Study.	**HotCloud 2019**
Edward Oakes, Leon Yang, Dennis Zhou, and Kevin Houck, **Tyler Harter**, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. SOCK: Rapid Task Provisioning with Serverless-Optimized Containers.	**ATC 2018**
Edward Oakes, Leon Yang, Kevin Houck, **Tyler Harter**, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Fast and Flexible Containerization with Pipsqueak.	**WOSC 2017**
Scott Hendrickson, Stephen Sturdevant, Edward Oakes, **Tyler Harter**, Venkateshwaran Venkataramani, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Serverless Computation with OpenLambda.	**;login (Winter 2016)**
Scott Hendrickson, Stephen Sturdevant, **Tyler Harter**, Venkateshwaran Venkataramani,, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Serverless Computation with OpenLambda.	**HotCloud 2016**
Tyler Harter, Brandon Salmon, Rose Liu, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Slacker: Fast Distribution with Lazy Docker Containers.	**FAST 2016**
Suli Yang, **Tyler Harter**, Nishant Agrawal, Salini Selvaraj Kowsalya, Anand Krishnamurthy, Samer Al-Kiswany, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Split-Level I/O Scheduling.	**SOSP 2015**
Tyler Harter, Dhruba Borthakur, Siying Dong, Amitanand Aiyer, Liyin Tang, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Analysis of HDFS Under HBase: A Facebook Messages Case Study.	**;login (June 2014)**
Tyler Harter, Dhruba Borthakur, Siying Dong, Amitanand Aiyer, Liyin Tang, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. Analysis of HDFS Under HBase: A Facebook Messages Case Study.	**FAST 2014**

Zev Weiss, **Tyler Harter**, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. ROOT: Replaying Multithreaded Traces with Resource-Oriented Ordering. **SOSP 2013**

Thanh Do, **Tyler Harter**, Yingchao Liu, Haryadi S. Gunawi, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. HARDFS: Hardening HDFS with Selective and Lightweight Versioning. **FAST 2013**

Tyler Harter, Chris Dragga, Michael Vaughn, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. A File is Not a File: Understanding the I/O Behavior of Apple Desktop Applications. **TOCS 2012**

Tyler Harter, Chris Dragga, Michael Vaughn, Andrea C. Arpaci-Dusseau, and Remzi H. Arpaci-Dusseau. A File is Not a File: Understanding the I/O Behavior of Apple Desktop Applications. **SOSP 2011**