

David S. Ferry

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Education

2010-2016 Ph.D. in Computer Science, Washington University in St. Louis. Dissertation titled "Concurrency Platforms for Real-Time and Cyber-Physical Systems." Projected graduation May 2016.

2004-2010 B.S. in Mathematics and Computer Science, Truman State University. CS senior capstone titled "Cache Modeling Using Spatial Locality of Reference." Math senior capstone titled "Manipulability of Resolute Voting Rules for Linear Ballots." Degree awarded May 2010.

Professional Experience

2010-2016 Graduate Research Assistant in Computer Science and Engineering, Washington University, St. Louis, MO.

Teaching Experiences

2016 **Course developer and instructor.** CSE 522S – Advanced Operating Systems

2012 TA. CSE 241 – Algorithms and Data Structures

2011 TA. CSE 549T – Theory of Parallel Systems

2010 TA. CSE 547T – Introduction to Formal Languages and Automata

Mentorship Experiences

- 2014 John Emmons (MS/BS), Meir Friedenberg(BS/REU), Matt Dole (REU),
 Nick Nooney (REU), Joey Woodson (REU)
- 2013 Kevin Kieselbach (MS/BS), Ethan Rabb (MS/BS), Harsh Bhatt (REU),
 Sierra Gregg (REU)
- 2012 Mahesh Mahadevan (MS), Tommy Powers (BS), Kevin Zheng (BS)

Publications

Refereed Journals

1. D. Ferry, A. Maghareh, G. Bunting, A. Prakash, K. Agrawal, C. Gill, C. Lu, and S. Dyke, CyberMech: A Highly Parallel Concurrency Platform for Enhancing Performance of Real-Time Hybrid Simulations, **pending review**
2. J. Li, Z. Luo, D. Ferry, K. Agrawal, C. Gill and C. Lu, Global EDF Scheduling for Parallel Real-Time Tasks, Real-Time Systems, **Special Issue on Best Papers of ECRTS'13**, 51(4): 395-439, July 2015.
3. A. Saifullah, D. Ferry, J. Li, K. Agrawal, C. Lu and C. Gill, Parallel Real-Time Scheduling of DAGs, IEEE Transactions on Parallel and Distributed Systems, 25(12): 3242-3252, December 2014.

Refereed Conferences

1. J. Li, D. Ferry, S. Ahuja, K. Agrawal, C. Gill and C. Lu, Mixed-Criticality Federated Scheduling for Parallel Real-Time Tasks, IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'16), April 2016. **Outstanding Paper Award**
2. D. Ferry, G. Bunting, A. Megareh, S. Dyk, A. Prakash, K. Agrawal, C. Gill and C. Lu, Real-Time System Support for Hybrid Structural Simulation, ACM International Conference on Embedded Software (EMSOFT'14), October 2014.
3. D. Ferry, A. Megareh, G. Bunting, A. Prakash, K. Agrawal, C. Gill, C. Lu and S. Dyke, On the Performance of a Highly Parallelizable Concurrency Platform for Real-Time Hybrid Simulation, World Conference on Structural Control and Monitoring (6WCSCM), July 2014.
4. D. Ferry, J. Li, M. Mahadevan, K. Agrawal, C.D. Gill and C. Lu, A Real-Time Scheduling Service for Parallel Tasks, IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS'13), April 2013.

Department Service

2012 Vice President of the Computer Science Graduate Student's Association

Professional Skills

- Real-time systems engineering
- Cyber-physical systems engineering
- Linux kernel hacking
- Linux systems programming
- Concurrency platforms and synchronization mechanisms
- Parallel programming
- Parallel algorithms
- Languages: C, C++, Java, OpenMP, Cilk Plus, Bash, Python