

## Dr Mark Stillwell

Fellow of the Higher Education Academy (UK)

Software Carpentry Certified Instructor

mark@stillwell.me

<http://stillwell.me>

<http://github.com/marklee77>

### ACADEMIC EMPLOYMENT

- 09/2014–present: Research Associate**  
Distributed Software Engineering (DSE) Workgroup  
Department of Computing  
Imperial College London, United Kingdom
- 01/2012–08/2014: Lecturer, Distributed Computing & e-Science MSc option leader**  
Department of Engineering Computing  
Cranfield University, United Kingdom
- 12/2010–01/2012: Postdoctoral Researcher**  
Resource Optimization: Models, Algorithms, and scheduling (ROMA) Workgroup  
Institut National de Recherche en Informatique et en Automatique (INRIA)  
Ecole Normale Supérieure de Lyon, France
- 08/2006–06/2010: Research / Teaching Assistant**  
Concurrency Research Group (CoRG)  
Information & Computer Sciences Department  
University of Hawai'i at Mānoa, Honolulu, USA
- 08/1999–08/2003: Teaching Assistant**  
Department of Computer & Information Science & Engineering  
Department of Mathematics  
University of Florida, Gainesville, USA

### EDUCATION

**PhD, Computer Science**, 12/2010

Thesis: *Dynamic Fractional Resource Scheduling for Cluster Platforms*

University of Hawai'i at Mānoa, Honolulu, Hawaii, USA

**Postgraduate Certificate, Academic Practice**, 6/2015

HEA accredited against the UK Professional Standards Framework (UKPSF)

40 credits teaching, 20 credits research practice

Cranfield University, Cranfield, Bedfordshire, UK

**MS, Computer Science**, 08/2003

**MS, Mathematics**, 05/2002

University of Florida, Gainesville, Florida, USA

**BS, Computer Science, Mathematics minor**, 05/1999

University of North Florida, Jacksonville, Florida, USA

### REFEREED INTERNATIONAL JOURNAL ARTICLES

M. Stillwell, F. Vivien, and H. Casanova, “Dynamic fractional resource scheduling versus batch scheduling,” *IEEE Transactions on Parallel and Distributed Systems*, vol. 23, no. 3, pp. 521–529, 2012.

M. Stillwell, D. Schanzenbach, F. Vivien, and H. Casanova, “Resource allocation algorithms for virtualized service hosting platforms,” *Journal of Parallel and Distributed Computing*, vol. 70, no. 9, pp. 962–974, 2010.

## REFEREED INTERNATIONAL CONFERENCE & WORKSHOP PAPERS

- M. Stillwell and J. G. d. F. Coutinho, “A DevOps approach to integration of software components in an EU research project,” in *Proceedings of the 1st International Workshop on Quality-Aware DevOps*, Sep. 2015.
- P. Bédaride, A. Degomme, S. Genaud, A. Legrand, G. S. Markomanolis, M. Quinson, M. Stillwell, F. Suter, and B. Videau, “Toward better simulation of MPI applications on Ethernet/TCP networks,” in *Proceedings of the 4th International Workshop on Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems*, Nov. 2013.
- M. Stillwell, F. Vivien, and H. Casanova, “Virtual machine resource allocation for service hosting on heterogeneous distributed platforms,” in *Proceedings of the 26th International Parallel and Distributed Processing Symposium*, May 2012.
- P.-N. Clauss, M. Stillwell, S. Genaud, F. Suter, H. Casanova, and M. Quinson, “Single node on-line simulation of MPI applications with SMPI,” in *Proceedings of the 25th International Parallel and Distributed Processing Symposium*, May 2011.
- M. Stillwell, F. Vivien, and H. Casanova, “Dynamic fractional resource scheduling for HPC workloads,” in *Proceedings of the 24th International Parallel and Distributed Processing Symposium*, Apr. 2010.
- M. Stillwell, D. Schanzenbach, F. Vivien, and H. Casanova, “Resource allocation using virtual clusters,” in *Proceedings of the 9th International Symposium on Cluster Computing and the Grid*, May 2009, pp. 260–267.

## MSC STUDENT SUPERVISION

- 2014:** Marcin Długajczyk, *Virtual Machine CPU Schedulers for Communicating Parallel Tasks*  
Saqib Hussain, *Improving Reproducibility of Parallel Computations with Docker*  
Miguel Grimaldos Moreno, *Computational Offloading from an Android Device*  
Ricard Garra Oronich, *Resource Federation and Access Delegation System with X.509 Certificates*  
Gabriel Muller, *HTML5 WebSocket Protocol and its Application to Distributed Computing*  
Léo Unbekandt, *Resource Allocation Algorithms for Containerized Web Applications*  
Gabor Lazlo Zelei, *Android Mobile App Development for a Streaming Music Service*  
Dereck Webster (MSc by Research, with Dr Toby Breckon),  
*Rain Drop Detection for Improved Sensing in Automotive Computer Vision Applications*
- 2013:** Hubert Ametefe, *VM Configuration and Build System for Reproducible Computer Experiments*  
Christos Batzillis, *Globus Online Interface for Android*  
Bernadetta Brzeczek, *High-performance Distributed Calculations on Android Devices*  
Edern Hotte, *MyProxy Client for Android*  
Attila Döme Lehóckzy, *Workflow for MPI-tracing experiments on Grid5000*  
Keyne Leuyckx, *VM Schedulers for Distributed Communicating Parallel Tasks*  
Valter Pinho, *Taverna Workflow Editor for Android*  
Felipe Schmitt, *Data Sharing on P2P Mobile Networks*  
Ambrus Simon, *Taguchi Methods for Hadoop-based Parameter Sweep Experiments*
- 2012:** Tamás Barabás, *Simulation Study of Distributed Hash Table Algorithms*  
Csaba Kerti, *Virtual Machine Co-Scheduling Modules for Xen*  
Dalgis Diaz León, *HPC for Cloud Computing User Interface*

## LEADERSHIP ACTIVITIES

- Organizer, Cloud Computing for Research Software Carpentry Bootcamp, 2015  
Co-Chair, UKRSE: The UK Community of Research Software Engineers, 2014–2015  
Co-Organizer, International Workshop on Reproducibility in Parallel Computing, Euro-Par, 2014–2015  
Local Coordinator, EPCC/Archer Cranfield Software Carpentry Bootcamp, 2014

## PROGRAM COMMITTEES

International Conference on High Performance Computing, 2012–2015  
Workshop on Virtualization Technologies in Distributed Computing, 2015  
International Parallel and Distributed Processing Symposium, 2013–2014  
International Conference on High Performance Computing & Simulation, 2014  
International Conference on Advanced Communications and Computation, 2014  
International Conference on Grid Computing, 2011–2012

## JOURNAL REVIEWING

*Journal of Systems and Software*, 2012–2015  
*Journal of Parallel and Distributed Computing*, 2014–2015, 2011–2012  
*Transactions on Cloud Computing*, 2015  
*Parallel Computing*, 2013–2014, 2011  
*Future Generation Computer Systems*, 2013–2014, 2010  
*Transactions on Computers*, 2014  
*Journal of Systems Science and Systems Engineering*, 2014  
*Theory of Computing Systems*, 2012  
*Journal of Scheduling*, 2011  
*Transactions on Computing*, 2011  
*Concurrency and Computation: Practice and Experience*, 2011  
*Computers & Electrical Engineering*, 2011

## INVITED TALKS

- 06/2013:** *SMPI Data Management Planning Exercise*  
Simgrid Code Sprint, ANR/INFRA SONGS: Simulation of Next Generation Systems Project  
Lyon, France
- 06/2011:** *Dynamic Fractional Resource Scheduling Practical Issues and Future Directions*  
International Research Workshop on Advanced High Performance Computing Systems  
Cetraro, Italy
- 05/2011:** *Dynamic Fractional Resource Scheduling vs. Batch Scheduling*  
Scheduling in Aussois Workshop  
Aussois, France

## NONACADEMIC EMPLOYMENT

- 12/2003–06/2004:** **Web Administrator**  
MasterCard International (contract employee for TEKSystems, Inc.)  
St. Louis, USA
- 03/2001–06/2003:** **Linux Administrator**  
University of Florida  
Gainesville, USA
- 09/1997–06/1999:** **Web / Database Programmer**  
Millennium TSI  
Jacksonville, USA

## HONORS AND AWARDS

**Sarah Ann Martin Award in Information Science**, ARCS Foundation, 2010–2011  
**Mānoa Opportunity Grant**, University of Hawai'i at Mānoa, 2009–2010  
**FLO Professional Development Fellowship**, Una Chapman Cox Foundation, 2006–2007  
**Grinter Fellowship**, University of Florida, 1999–2002  
**National Merit Scholar Finalist Scholarship**, University of North Florida, 1995–1999  
**Florida Bright Futures Scholarship**, State of Florida, 1995–1999

## MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE)  
Association for Computing Machinery (ACM)