Dr Mark Stillwell

Fellow of the Higher Education Academy (UK)
Software Carpentry Certified Instructor
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Recent Employment

11/2018–present: **Software Engineer**
Apple, United Kingdom

11/2017–11/2018: **Senior Site Reliability Engineer**
Shazam, United Kingdom

02/2016–11/2017: **Site Reliability Engineer**
Cisco Meraki, United Kingdom

09/2014–02/2016: **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

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, 06/2015
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

A. Degomme, A. Legrand, G. Markomanolis, M. Quinson, M. Stillwell, and F. Suter, "Simulating MPI applications: The SMPI approach," *IEEE Transactions on Parallel and Distributed Systems*, vol. 28, no. 8, pp. 2387–2400, 2017.

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

T. Yu, B. Feng, M. Stillwell, L. Guo, Y. Ma, and J. D. Thomson, "Lattice based scheduling for multi-FPGA systems," in *Proceedings of the International Conference on Field-Programmable Technology*, Dec. 2018.

A. Iordache, G. Pierre, P. Sanders, J. G. d. F. Coutinho, and M. Stillwell, "High performance in the cloud with FPGA groups," in *Proceedings of the 9th IEEE/ACM International Conference on Utility and Cloud Computing*, Dec. 2016.

S. Arnautov, B. Trach, F. Gregor, T. Knauth, A. Martin, C. Priebe, J. Lind, D. M. Muthukumaran, D. OKeeffe, M. Stillwell, D. Goltzsche, D. Eyers, R. Kapitza, P. Pietzuch, and C. Fetzer, "SCONE: Secure Linux containers with Intel SGX," in *Proceedings of the 12th USENIX Symposium on Operating Systems Design and Implementation*, Nov. 2016.

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.

Book Chapters

J. G. d. F. Coutinho, M. Stillwell, K. Argyraki, G. Ioannidis, A. Iordache, C. Kleinweber, A. Koliousis, J. McGlone, G. Pierre, C. Ragusa, P. Sanders, T. Schütt, T. Yu, and A. Wolf, "The HARNESS platform: A hardware- and network-enhanced software system for cloud computing," in *Software Architecture for Big Data and the Cloud*. Elsevier, 2017.

Honors and Awards

Fellowship, Software Sustainability Institute, 2015

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

Mu Alpha Theta Mathematics Honor Society, 1999

National Merit Scholar Finalist Scholarship, University of North Florida, 1995–1999

Florida Bright Futures Scholarship, State of Florida, 1995–1999