Dr Joseph Reddington

CONTACT INFORMATION

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APPOINTMENTS

Chief Operating Officer, eQuality Time LTD 09/2014-

In 2014 I founded the social enterprise, later charity, eQuality Time, which looks at ways that technology can make a difference to social problems. We have funded projects addressing new approaches to English as a Foreign language, Prison reoffending, Child Literacy, online disinformation, and Communication Disability. You should know that one of the reasons this CV is terrible is because I have zero intention of ever changing jobs.

Research Assistant, Royal Holloway 08/2011-09/2014

I designed and built the back-ends of interpreters for Caml-Light and C and created and released a selection of Eclipse plugins that provided editors for domain specific languages. The PLanCompS project goal was to dramatically lower the effort of giving formal specifications of larger languages, and increase the tangible benefits of doing so. In more minor responsibilities I maintained the project version control system along with the website and other system administration duties.

Research Associate, School of Computing, Teesside University 03/2011-08/2011

I undertook research relevant to the areas of interactive storytelling and systems for augmented reality. This included emotional structure and use of Artificial intelligence techniques such as automated planning.

Teaching Fellow/Visiting Lecturer, Royal Holloway 11/2010-03/2011

As a part time Teaching Fellow I taught the postgraduate course 'People and technology' for the iCOM centre. I spent my remaining time as a Visiting Lecturer for the Computer Science department where I taught the 2nd year computer science course 'Algorithms and complexity'. As a result of this work, I received the college excellence teaching prize for 2010/2011.

Research Assistant, Computer Science, Aberdeen University 2/2010-10/2010

The 'How was school today…?' project mined sensor data to develop systems that automatically add new content to speech aids used by disabled children. I had overall responsibility for designing and deploying the wireless system used to track children around schools, as well as the integration of the overall system. I contributed to a number of research publications and traveled to Pittsburgh to discuss our research with project partners. The post also extended to cover supervision a final year project students with game-design projects and teaching several short courses in basic information technology.

Research Assistant, iCOM Centre, Royal Holloway 9/2009-1/2010

As part of a cross-disciplinary research group examining multi-modal interfaces, augmented reality and video conferencing I developed a series of videoconferencing tools in Java and went on to build some proof-of-concept robotic systems.

Analyst Programmer, QCC Information Security 6/2009-9/2009

Working within a team of software engineers I produced tools and developed processes to support extraction and interpretation of user data. This included strong experience in commercial software engineering with C#, and javascript. This supported such activities as evidence capture from seized computers and mobile phones, tracking of mobile phones by cell signal, and penetration testing. During an end-to-end review of the forensic reporting procedures I gained a thorough understanding of the open questions and challenges in digital forensics.

IT Tutor, Royal Holloway 9/2007-6/2009

As an IT tutor I delivered specially tailored IT training sessions across a wide range of areas to university staff and students. I later specialised in training students from the Health and Social

Care department to achieve their mandatory ECDL qualification. I prepared and delivered a variety of specialised teaching programs including a full-time, two week course. For my work with the computer centre I received the postgraduate teaching prize for 2008/2009.

EDUCATION

Royal Holloway College, University of London,

Ph.D. Computer Science, 2004-2009

Title: Instruction Selection for customisable processors
Supervisors: Prof. E. Scott and Prof. A. Johnstone
Working as part of the Theory of Computing Group I developed improvements to algorithms generating new instruction sets for reconfigurable hardware.

Postgraduate Certificate in Skills to Inspire Learning, 2004-2005
Portfolio subject: Small group exercises for teaching Java.

B.Sc. Computer Science with Communications, First class (Hons), 2001-2004

Dissertation project: Simulation of TCP flow control methods in Java.

SELECTED PUBLICATIONS

Journal papers and book chapters

J. Reddington, The Domesday Project: an open dataset for AAC provision, Journal of Intellectual Disability, 2013

L. Coles-Kemp, and J.Reddington, Not So Liminal Now: The Importance of Designing Privacy Features Across a Spectrum of Use, Chapter in Digital Enlightenment Forum yearbook 2013: the value of personal data, IOS Press, 2013

G. Gutin, A. Johnstone, J. Reddington, E. Scott, and A. Yeo, An algorithm for finding input and output constrained convex sets in an acyclic digraph, Journal of Discrete Algorithms, 2012

J. Reddington and K.Atasu, On the complexity of instruction set selection algorithms, IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011

L. Coles-Kemp, J. Reddington, and P. Williams, Looking at clouds from both sides: The advantages and disadvantages of placing personal narratives in the cloud, Information Security Technical Report, 2011

F. Murtagh, A. Ganz, and J. Reddington, New Methods of Analysis of Narrative and Semantics in Support of Interactivity, Entertainment Computing, 2011

P. Balister, S. Gerke, G. Gutin, A. Johnstone, J. Reddington, E. Scott, A. Soleimanfallah and A. Yeo, Algorithms for generating convex sets in acyclic digraphs. Journal of Discrete Algorithms 7 (2009)

Conference papers

J. Reddington, Episode clustering in Interactive Storytelling, to appear, 2014

J. Reddington, Failed a roll: the Caml-Light Grammar under the microscope, to appear, 2015

J.Reddington, Standing on the shoulders of giants: attacking the meta-problems of technical AAC research, SLPAT 2014

J. Reddington, D. Cowie and F. Murtagh, Computational Properties of Fiction Writing and Collaborative Work, IDA2013, 2013

J. Reddington and N. Tintarev, Automatically Generating Stories from Sensor Data, Proceedings of the 15th international conference on Intelligent user interfaces - IUI '11. pp. 407

J. Reddington and L. Coles-Kemp, Trap Hunting: Finding Personal Data Management Issues in Next Generation AAC Devices, Second Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), 2011

R. Black, J. Reddington, E. Reiter, N. Tintarev, and A. Waller, A Mobile Phone Based Personal Narrative System, The 12th International ACM SIGACCESS Conference on Computers and Accessibility, 2011

N.Tintarev and J.Reddington, Ubiquitous User Modeling for a Complex Communication Aid, Ubiquitous User Modeling Workshop. Haifa, Israel. 2011

F. Murtagh, A. Ganz, and J. Reddington, Semantics of narrative in collective, distributed problem-solving environments, International conference on Correspondence Analysis and Related Methods (CARME), 2011

J. Reddington and N. Tintarev, Automatically Generating Stories from Sensor Data, Proc. International Conference on Intelligent User Interfaces (IUI), 2011

N. Tintarev, J. Reddington, E. Reiter, R.. Black, A. Waller, Hands Busy, Eyes Busy: Generating Stories from Sensor Data for Automotive applications. The 3rd International Workshop on Multimodal Interfaces for Automotive Applications (MIAA), 2011

R. Black, J. Reddington, E. Reiter, N. Tintarev, and A. Waller, Using NLG and Sensors to Support Personal Narrative for Children with Complex Communication Needs, Proc. SLPAT at NAACL HLT 2010

J. Reddington, G. Gutin, A. Johnstone, E. Scott, and A. Yeo, Better than optimal: fast identification of custom instruction candidates, Proc. 7th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing, 2009

G. Gutin, A. Johnstone, J. Reddington, E. Scott, and A. Yeo, An algorithm for finding input-output constrained convex sets in an acyclic digraph, Proc. WG08, Lect. Notes Comput. Sci. 5344, 2008

G. Gutin, A. Johnstone, J. Reddington, E. Scott, A. Soleimanfallah, and A. Yeo, An algorithm for finding connected convex subgraphs of an acyclic digraph. In 'Algorithms and Complexity in Durham, 2007', College Publications, 2008

AWARDS

Royal Holloway College, University of London,

- Postgraduate Tutor Prize 2008/2009 (shared with another tutor),
- Team Teaching Prize 2009/2010,
- Teaching Excellence Prize 2010/2011,