Mark Whiting

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Australian &
US Citizen

Education

Carnegie Mellon University   Pittsburgh, PA, USA   2017
PhD in progress in Mechanical Engineering   *Expected*
Advised by Jon Cagan & Phil Leduc

Korean Advanced Institute of Science and Technology   Daejeon, South Korea   2010
MS in Industrial Design
Advised by Lim Youn-Kyung & Name Tek-Jin

Royal Melbourne Institute of Technology   Melbourne, Australia   2007
BDes with highest honors in Industrial Design
Advised by Malte Wagenfeld

Zhejiang University   Hangzhou, China   2006
Exchange Student for 1 year in Industrial Design

Research

2015-2016	**Automated Grammar Induction** Developed algorithm for rapidly extracting design rules from structured data. Applied in engineering and biological contexts Presented at DCC, more pending review, patent in processing	**Thesis work** Carnegie Mellon University
2016	**Crowd Guilds** Lead team in development of social management and open governance scheme for microtask platforms To be presented at CSCW	**Stanford Crowd Research Collective** Stanford University
2016	**Boomerang** Introduced incentive compatible interaction design for microtask platforms To be presented at UIST	**Stanford Crowd Research Collective** Stanford University
2016	**Tasker** Mentored team to introduce system architecture supporting crowdsourcing researchers in delivering safe and reliable tasks Pending review	**iSchool Inclusion Institute** University of Pittsburgh
2015	**AutoCard** Developed automated card design mechanism and platform architecture	**Design Fiction** Carnegie Mellon University
2014-2016	**Algorythm** Mentored team developing computational product review analysis methods Presented at iConference	**iSchool Inclusion Institute** University of Pittsburgh

2014-2016	**EngFlow** Mentored undergraduate researcher introducing novel methods for engineering design and product architecture using crowdsourcing Pending review	**Undergraduate Research Mentorship** Carnegie Mellon University
2012	**EmotionBook** Lead development of platform for evaluating psychological state propagation on social networks.	**Cultural Technology** Korean Advanced Institute of Science and Technology
2010	**Creative Users** Developed framework for establishing relationship between creative users and designers	**Thesis work** Korean Advanced Institute of Science and Technology
2010	**CulturalDNA** Developed approach to measuring cultural difference through computational analysis of artifacts. Presented at CADDRIA	**Cultural Technology** Korean Advanced Institute of Science and Technology
2009	**Design in the Cloud** Developed proposal for cloud tools for design development Presented at IASDR	Royal Melbourne Institute of Technology

Teaching

2013-2016	**Future Faculty Program** Nearing completion of future faculty trading program.	CMU
2013-14	**Senior Design,** Teaching assistant, 2 semesters Helped student teams develop concepts into novel products. Nominated for teaching assistance award.	CMU
2011	**Design Product System Class,** Teaching assistant	KAIST
2009	**Emotional Design,** Teaching assistant	KAIST

Employment

2015	**Director of Finance, National Association of Graduate and Professional Students (NAGPS)**	Washington, DC
2012	**Visiting Scholar, CT, KAIST**	Daejeon, South Korea
2003-2012	**Lead Designer, Adaptive Equipment** Summer jobs over various years developing new products, operations and medical devices	Gainesville, FL
2011	**Researcher, ID, KAIST**	Daejeon, South Korea

Other Projects

2014	**What is Service Design?** Codeveloped script for video clearly introducing service design. Viewed more than 10,000 times	New York, NY
2012	**Windfire Circle Tool for Windfire Designs** Developed tool for leather working and other hand making Sold thousands of units	Gainesville, FL
2009-2012	**TEDxKAIST (and other TEDx in Korea)** Founder and Director	Daejeon, South Korea

Awards

2009	**Red Dot** Concept Award	Singapore
2007	**Australian Youth Delegation to China** Invitee of President of China, Hu Jintao	Beijing, China
2007	**First Class Honors, RMIT**	Melbourne, Australia
2006	**Red Dot** Concept Award	Singapore
2001	**FIRST Robotics Competition** First Prize Alliance	South Eastern Region

Publications

Whiting, Mark E., Dilrukshi Gamage, Aaron Gilbee, Snehal Gaikwad, Shirish Goyal, Alipta Ballav, Dinesh Majeti, Nalin Chhibber, Freddie Vargus, Teo Moura, Angela Richmond-Fuller, Varshine Chandrakanthan, Gabriel Bayomi Tinoco Kalejaiye, Tejas Seshadri Sarma, Yoni Dayan, Adam Ginzberg, Mohammed Hashim Kambal, Kristy Milland, Sayna Parsi, Catherine A. Mullings, Henrique Orefice, Sekandar Matin, Vibhor Sehgal, Sharon Zhou, Akshansh Sinha, Jeff Regino, Rajan Vaish, Michael S. Bernstein. **Crowd Guilds: Worker-led Reputation and Feedback on Crowdsourcing Platforms**. CSCW, ACM. 2017. **Accepted**

Gaikwad, S.S., D. Morina, A. Ginzberg, C. Mullings, S. Goyal, D. Gamage, C. Diemert, M. Burton, S. Zhou, M. E. Whiting, K. Ziulkoski, A. Ballav, A. Gilbee, S.S. Niranga, V. Sehgal, J. Lin, L. Kristianto, A. Richmond-Fuller, J. Regino, N. Chhibber, D. Majeti, S. Sharma, K. Mananova, D. Dhakal, W. Dai, V. Purynova, S. Sandeep, V. Chandrakanthan, T. Sarma, S. Matin, A. Nassar, R. Nistala, A. Stolzoff, K. Milland, V. Mathur, R. Vaish, M.S. Bernstein. **Boomerang: Rebounding the Consequences of Reputation Feedback on Crowdsourcing Platforms**. UIST, ACM. 2017. **Accepted**

Whiting, M. E., J. Cagan, & P.R. LeDuc, **Automated Induction of General Grammars for Design**. Design Computation and Cognition. 2016.

Whiting, M. E. & Varadarajan, S. **Early Exploration of Cloud Computing for Design Practice & Education**. Proceedings of International Association of Societies of Design Research (IASDR), Seoul Nov. 2009.

Lee, J.H., Park, H.J, Lim, S., Kim, S.J., Jung, H. & Whiting, M. E. **A Formal Approach for the Interpretation of Cultural Content: Evolution of a Korean traditional pattern, Bosangwhamun**. Proceedings of Computer Aided Architectural Design in Asia (CAADRIA), Hong-Kong Mar. 2010.