

Rhys Hill's Resume

1 Personal Details

Name: Rhys Hill
Date of Birth: 13th of June, 1980
Email: rhys.hill@adelaide.edu.au
Postal Address: 16 Thistle Avenue, Klemzig, South Australia, 5087
Phone Number: +61 8 8266 0090
Mobile Number: 0419 038 028

2 Education

2.1 Ongoing

2002 – Present PhD

2.2 Completed

2001 Bachelor of Computer Science (Honours), from the University of Adelaide
2000 Bachelor of Science (Mathematical & Computer Science), from the University of Adelaide

I am currently pursuing a PhD, in the area of Computer Vision. My Thesis is titled “Terrain Reconstruction from an UAV” and aims to provide automatic reconstructions of terrain viewed by an Unmanned Aerial Vehicle. I commenced my PhD in April of 2002.

I received First Class Honours in 2001. My honours project was entitled “Monitoring and tracking via multiple cameras” and involved real-time image processing to track people in several cameras simultaneously. This work was done primarily under Windows 2000, but the core components also run under OS X, Solaris and FreeBSD.

3 Employment

2007 – Present	Senior Research Associate, Australian Centre for Visual Technologies.
2005 – 2006	Worked extensively on two contracts for the Defence Science and Technology Organisation, within the area of my PhD.
2004 – 2006	Ran an Apple consultation business, to assist users with technical issues related to Apple computers.
2003 – 2005	Tutoring and practical supervision for Computer Vision, a fourth year subject.
2003 – 2004	Tutoring for students in the Bradford College international student bridging program.
2001 – 2005	Tutoring and practical supervision of various undergraduate subjects, from first to third year.

4 Commercial Research

I participated in the following commercial research projects:

2009	<i>Digital versus Analogue Cameras for Video Surveillance</i> , For the Defence, Science and Technology Organisation.
2008	<i>Incorporating DEM and GPS Information into Video-based Terrain Modelling</i> , For the Defence, Science and Technology Organisation.
2008	<i>Optimal Camera Placement for Large Video Surveillance Networks</i> , For the Defence, Science and Technology Organisation.
2008	<i>Optimisation of the Performance of target Tracking Over a Multiple Camera Network</i> , For the Defence, Science and Technology Organisation.
2008	<i>Tracking of Humans in Cluttered Crowd Scenes</i> , For the Defence, Science and Technology Organisation.
2007	<i>Video Surveillance Colour Correction Technology</i> , For the Defence, Science and Technology Organisation.
2005 – 2008	<i>Three-Dimensional Terrain Mapping from Aerial Video and DEMs</i> , For the Defence, Science and Technology Organisation.
2006 – 2007	<i>Background Modelling for Video Object Detection Project</i> , For Canon Information Research Systems Australia.

5 Teaching

2008	Taught half of Artificial Intelligence at the University of Adelaide.
2007	Taught half of an intensive Artificial Intelligence course in Singapore.
2006	Taught half of an intensive Artificial Intelligence course in Singapore.

2005	Taught half of an intensive Artificial Intelligence course in Singapore.
2005 – 2006	Presented some lectures for Data Structures and Algorithms, both as a guest presenter and as a lecturer for one module.
2005	Co-supervised a Masters student on a project related to mapping from UAVs.
2004	Taught half of a 2 week course called Computer Science Concepts, a bridging course for International Masters students.

6 Achievements

6.1 Publications

2010	Bastian, J., Ward, B., Hill, R., van den Hengel, A., and Dick, A., <i>Interactive Modelling for AR Applications</i> , ISMAR, 2010.
2009	Detmold, H., van den Hengel, A., Dick, A., Madden, C., Cichowski, A. and Hill, R., <i>Surprisal-aware Scheduling of PTZ Cameras</i> , ICDCS, 2009.
2009	van den Hengel, A., Hill, R., Ward, B., Cichowski, A., Detmold, H., Madden, C., Dick, A. and Bastian, J., <i>Automatic Camera Placement for Large Scale Surveillance Networks</i> , WACV, 2009.
2009	van den Hengel, A., Hill, R., Ward, B. and Dick, A., <i>In Situ Image-based Modeling</i> , ISMAR, 2009.
2009	van den Hengel, A., Detmold, H., Madden, C., Dick, A., Cichowski, A. and Hill, R., <i>A Framework for Determining Overlap in Large Scale Networks</i> , ICDCS, 2009.
2009	Hill, R., Madden, C., van den Hengel, A., Detmold, H. and Dick, A., <i>Measuring Latency for Video Surveillance Systems</i> , DICTA, 2009.
2009	Chojnacki, W., Hill, R., van den Hengel, A. and Brooks, M., <i>Multi-projective Parameter Estimation for Sets of Homogeneous Matrices</i> , DICTA, 2009.
2009	Cichowski, A., Madden, C., van den Hengel, A. and Hill, R., <i>Contradiction and Correlation for Camera Overlap Estimation</i> , AVSS, 2009.
2008	Detmold, H., van den Hengel, A., Dick, A., Cichowski, A., Hill, R., Kocadag, E., Yarom, Y., Falkner, K. and Munro, D.S. <i>Estimating camera overlap in large and growing networks</i> , ICDCS, 2008.
2008	Hill, R., van den Hengel, A., Dick, A., Cichowski, A. and Detmold, H. <i>Empirical evaluation of the exclusion approach to estimating camera overlap</i> , ICDCS, 2008.
2007	van den Hengel, A., Hill, R., Detmold, H. and Dick, A. <i>Searching in Space and Time: A system for forensic analysis of large video repositories</i> . e-Forensics, 2007.
2007	van den Hengel, A., Dick, A., Detmold, H., Cichowski, A. and Hill, R. <i>Finding Camera Overlap in Large Surveillance Networks</i> . ACCV, 2007.

- 2007 Detmold, H., van den Hengel, A., Dick, A., Cichowski, A., Hill, R., Kocadag, E., Falkner, K. and Munro, D.S. *Topology Estimation for Thousand-camera Surveillance Networks*. ICDSC, 2007.
- 2006 van den Hengel, A., Dick, A. and Hill, R. *Activity Topology Estimation for Large Networks of Cameras*. AVSS, 2006.
- 2005 Hill, R. and van den Hengel, A. *Experiences with simulated robot soccer as a teaching tool*. ICITA, 2005.
- 2004 van den Hengel, A., Hill, R. and Brooks, M. *Incorporating constraints into the design of locally identifiable calibration patterns*, ICIP, 2003.

7 Skills

The majority of the software I write is in C++, but I am also fluent in Java, C and Matlab. My PhD work involves many areas of Computer Science, from fundamental work, to image processing, computer graphics and implementing correct and efficient numerical code. I have gained experience in managing projects through my work with the DSTO and my PhD. Similarly, I have gained experience in managing people, through my teaching of tutorials, co-supervising a Masters student and ongoing mentoring and guidance of my peers.