David Ryan

Curriculum Vitae

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Education

- 2013 Ph.D (Computer Vision), Queensland University of Technology, Brisbane, Australia, Thesis - Crowd Monitoring Using Computer Vision.
- 2008 **B.Eng Hons (Electrical and Computer)**, Queensland University of Technology, Brisbane, Australia, GPA - 6.5/7.0.

Experience

2013-Present Project Coordinator, IMAGE AND VIDEO LABORATORY (QUT), Brisbane, Australia.

- Large scale evaluation of computer vision algorithms for crowd monitoring.
- High quality journal article publications.
- Developed GUIs for end-users to use crowd monitoring algorithms.
- Provided academic supervision to students & researchers.
- Served on review panels for PhD defence seminars.
- 2012 Researcher (Traffic Monitoring), IMAGE AND VIDEO LABORATORY (QUT), Australia.
 - Developed a traffic monitoring application using computer vision.
 - Used feature point tracking to measure vehicle throughput at intersections.

2009–2013 Ph.D Candidate, QUEENSLAND UNIVERSITY OF TECHNOLOGY, Brisbane, Australia.

- Developed novel crowd monitoring algorithms in multi-camera networks:
 - Crowd counting, crowd flow estimation, queue monitoring, abnormal event detection.
- Experienced in camera calibration, background modelling, feature detection, optical flow, texture analysis, pedestrian detection.
- o Successfully implemented & used machine learning algorithms: Gaussian mixture models (GMM), hidden Markov models (HMM), Gaussian process regression (GPR), neural networks, support vector machines (SVM), decision trees, random forests.
- Exciting live demos & research presentations.

Projects

- 2009-2013 Airports of the Future, Australian Research Council, Linkage LP0990135, Project value \$9M.
- Intelligent Surveillance Research for Crowd Monitoring and Event Detection, National Security Science and Technology Unit (NSST) of the Department of Prime Minister and Cabinet, Research Support for Counter-Terrorism Program, Project value \$795K.

Publications

Online http://dryan.id.au

References

Available on request.