Ian Baldwin

CONTACT
3178 Catawba Court   *tel*:   (+1) (818) 482-0059
Pleasanton, 94566   *web*:   www.iabaldwin.com
California

RESEARCH INTERESTS
Long-term, large-scale localization
Robot perception for robust vehicle autonomy

WORK HISTORY

KBR/NASA Ames,   MAR '20 - (current)
Technical Leader, Data Science; Developing perception and
planning algorithms for space-robotics on the VIPER project.
Moffett Field, CA

Moss,   APR '19 - MAR '20
CTO; Focused on building scalable vision-based semantic mapping
and localization services on commodity hardware.
San Ramon, CA

PointOne Navigation,   JAN '18 - APR '19
Computer-vision Lead; Developed vision-based localization capabilities targeting
autonomous-driving vehicles.
San Francisco , CA

Zippy,   APR '17 - JAN '18
Robotics Engineer; Design and deployment of perception, planning, and navigation
approaches for scalable autonomous delivery platforms.
Santa Clara, CA

Zoox,   JUN '16 - APR '17
Technical lead - Calibration, Localisation, Mapping
Menlo Park, CA

Zoox,   JAN '16 - JUN '16
Software engineer; focused on calibration, localization and
mapping for autonomous vehicles.
Menlo Park, CA

Jet Propulsion Laboratory (JPL),   JAN '14 - JAN '16
Research engineer; worked on a number of projects related
to persistent long-term localization and autonomy,
for both terrestrial vehicles and rovers.
Pasadena, CA

EDUCATION

Oxford University,   Oxford, UK
DPhil, Engineering Science
Dissertation : Large-Scale Urban Localisation With A Pushbroom LIDAR
August, 2013
Advisor : Prof. Paul Newman

University of Cape Town,   Cape Town, RSA
MSc, Engineering (Mechanical)
Dissertation : eRobot: A 2nd Generation NDE Inspection Robot
December, 2006
Advisor : Steve Marais

University of Cape Town,   Cape Town, RSA
BSc, Engineering (Electro-mechanical)
First-class Honours
Dean's Merit List
December 2004

PUBLICATIONS

THESES   **Baldwin, I**, Large–Scale Urban Localisation with a Pushbroom LIDAR. (DPhil. Thesis). New College, Oxford

Baldwin, I, eRobot: A 2nd Generation NDE Inspection Robot. (MSc. Thesis). University of Cape Town.

CONFERENCE PAPERS   **Baldwin, I**, Newman, P. (2012) Laser-only road-vehicle localization with dual 2D push-broom LIDARS and 3D priors. In Proc. IEEE International Conference on Intelligent Robots and Systems (IROS), Vilamoura, Portugal

Baldwin, I, Newman, P. (2012) Road vehicle localization with 2D push-broom LIDAR and 3D priors. In Proc. IEEE International Conference on Robotics and Automation (ICRA), St. Paul, MN

Baldwin, I, Newman, P. (2010) Non-Parametric Learning for Natural Plan Generation. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Taipei, Taiwan

Baldwin, I, Newman, P. (2010) Teaching a Randomized Planner to Plan with Semantic Fields. Towards Autonomous Robotic Systems (TAROS), Plymouth U.K

JOURNAL ARTICLES   Smith, M., **Baldwin, I**, Churchill, W., Paul, R., Newman, P. (2009) The New College Vision and Laser Data Set. The International Journal of Robotics Research (IJRR) 28 595-599

WORKSHOPS   **Baldwin, I.A**, Newman, P. (2009) Learning to Plan. Neural Information Processing System (NIPS Workshop on Probabilistic Approaches for Robotics and Control), Vancouver B.C

CITIZENSHIP   USA, UK, South Africa