

BRETT BROWNING

PERSONAL DETAILS

Age: 28 (Born 15 December 1974)

Citizenship: Australian

Marital Status: Single

Hobbies: Playing guitar, gym, mountain biking, tai chi

EDUCATION

1997 - 2000 University of Queensland Brisbane, Australia
Doctor of Philosophy

- Awarded November 20, 2001
- Dissertation Title: Biologically Plausible Spatial Navigation for a Mobile Robot
- Advisor: Dr. Gordon Wyeth

1992 - 1997 University of Queensland Brisbane, Australia
Bachelor of Electrical Engineering (Major: Computer Systems Engineering)

- First class honors
- Deans list award

1992 - 1997 University of Queensland Brisbane, Australia
Bachelor of Science (Major: Mathematics)

- Joint degree with BE

PROFESSIONAL EXPERIENCE

July 2002 – present Carnegie Mellon University
Systems Scientist

- Leading small-size robot soccer project with Prof Manuela Veloso
- Advising a number of undergraduates performing research tasks
- Co-PI on ONR contract “Development and Demonstration of Intelligent Autonomy in Unmanned Vehicles”
- Developed a Communication Planning program for DARPA Active Templates program
- Co-chair RoboCup 2003 International Symposium (July 9-11)

- Organizer for the RoboCup American Open 2003 (April 30-May 4)

2000 – 2002 Carnegie Mellon University Pittsburgh, USA
Postdoctoral Fellow

- Developed new small-size robot soccer team with Prof Manuela Veloso
- Co-developed prototype model for UGCV project with Prof Tucker Balch & Battelle Corp.
- Co-authored funding proposals: SEC, MICA, UGCV
- Chair smallsize league, RoboCup 2002
- Local organizer smallsize league, RoboCup 2002

1996 Canal Brisbane, Australia
Engineering Consultant

- Provided design improvements for second Toll Booth Controller deployment

1995 - 1996 Advanced Ceramic Developments Brisbane, Australia
Design Engineer

- Designed and built toll booth controller system
- Designed and built toll booth embedded controller hardware and software systems

PROFESSIONAL ACTIVITIES

2003	RoboCup American Open 2003 organizer
	RoboCup International Symposium Co-chair
2002	RoboCup 2002 Smallsize league chair
2001	RoboCup 2001 Smallsize league local organizer

PROFESSIONAL MEMBERSHIP

2001 - present AAI member
 2002 – present IEEE member

PUBLICATIONS

Journal Publications

“Cognitive models of spatial navigation from a robot builder's perspective”, Gordon Wyeth and Brett Browning. *Adaptive Behaviour Journal*, 1997, Volume 6, Issue 3/4.

Conference Publications

“Multi-Robot Team Response to a Multi-Robot Opponent Team.” James Bruce,

Michael Bowling, Brett Browning, and Manuela Veloso. *The 2003 IEEE International Conference on Robotics and Automation ICRA'03*, Taiwan, May 2003. A previous version also submitted to IROS-2002 workshop on Collaborative Robots

“MONAD: A Flexible Architecture for Multi-Agent Control.” Thuc Vu, Jared Go, Gal Kaminka, Manuela Veloso, and Brett Browning. *The International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS'03)*, 2003, in press.

“UberSim: A Realistic Simulation Engine for Robot Soccer. In Proceedings of Autonomous Agents and Multi-Agent Systems”. Brett Browning and Erick Tryzelaar., *The International Conference on Autonomous Agents and Multi Agent Systems (AAMAS'03)*, 2003, in press.

“Principled monitoring of distributed agents for detection of coordination failure”, Brett Browning, Gal Kaminka, and Manuela M. Veloso. *The 6th International Symposium on Distributed Autonomous Robotic Systems (DARS'02)*, in press.

“Improbability filtering for rejecting false positives”, Brett Browning, Michael Bowling, and Manuela M. Veloso. *The 2002 IEEE International Conference on Robotics and Automation (ICRA'2002)*, in press.

“A navigation system for robot soccer”, Brett Browning, Gordon Wyeth, and Ashley Tews. *In the Australian Conference on Robotics and Automation (ACRA '99)*, Brisbane, Queensland, Australia, March 1999.

“Neural systems for integrating robot behaviours”, Brett Browning and Gordon Wyeth. *In the Australian Conference on Neural Networks (ACNN)*, Brisbane, Queensland, Australia, March 1998.

Others

“Viperroos 2000”, Mark Chang, Brett Browning, and Gordon Wyeth. In P. Stone, T. Balch, and G. Kraetzschmar (eds), *RoboCup-2000: Robot Soccer World Cup IV*, Springer Verlag, Berlin, 2000.

“Viperroos: Developing a low cost local vision team for the smallsize league”, Mark Chang, Brett Browning, and Gordon Wyeth. In A. Birk, S. Coradeschi, and S. Tadokoro (eds), *RoboCup-2001: The Fifth RoboCup Competitions and Conferences*, Springer Verlag, Berlin, 2002.

“UQ RoboRoos: Preliminary Design of a Robot Soccer Team”. Wyeth G.F., Browning B. and Tews A. In *Lecture Notes in AI: RoboCup '98, 1604*.

“UQ RoboRoos: Preliminary design of a robot soccer team”, Brett Browning, Gordon Wyeth, and Ashley Tews. *In RoboCup Workshop, Pacific-Rim International Conference on Artificial Intelligence, PRICRI '98*, Singapore, November 1998.

“UQ RoboRoos: Kicking on to 2000”. Wyeth G.F., Tews A. and Browning B. *RoboCup-2000: Robot Soccer World Cup IV. Lecture Notes in Artificial Intelligence 2019*. Springer Verlag, Berlin, 2001

“Using rat navigation models to learn orientation from visual input on a mobile robot”, Brett Browning. *In Proceedings of Autonomous Agents, 2001*, Montreal, Canada, November 2001. (Extended abstract)

Biologically Plausible Spatial Navigation for a Mobile Robot, Brett Browning. PhD thesis, Computer Science and Electrical Engineering Department, University of

Queensland, Brisbane, Qld, Australia, August 2000.

Biologically plausible spatial navigation for a mobile robot, Brett Browning. Technical report, Computer Science and Electrical Engineering Department, University of Queensland, 1998.

REFERENCES

Provided upon request