

Curriculum Vitae

Di Wang

Ph.D. Student

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Education

- Ph.D. in progress, Computer Science, University of Oklahoma (2008-current)
Dissertation: Learning Visual Features that Predict Grasp Type and Location
Advisor: Andrew H. Fagg
- M.S. in Computer Science from the University of Oklahoma (2007)
Thesis: A 3D Feature-based Object Recognition System for Grasping
Advisor: Andrew H. Fagg GPA: 4.00
- B.E. in Electronic Engineering (Automation) from Dalian University of
Technology (DUT), China (2004) GPA: 3.56

Research Interests

I am generally interested in robotics, artificial intelligence, machine learning and brain machine interface. Particularly, my research focuses on the development of learning algorithms that allow a robot to learn grasping skills automatically through visual and haptic feedback. Specific areas of interest include:

- Object recognition and pose estimation
- Robotic reaching, grasping, and manipulation.
- Developmental robotics that involves the interplay of supervised- and reinforcement-style learning algorithms. I am interested in robot learning through human demonstration.
- Brain-machine interfaces for advanced prosthetic devices.

Positions

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| 2005-current | Research Assistant, School of Computer Science, OU
Focus:
Force & Torque Based Controller for Grasp Contact Placement
A 3D Feature-based Object Recognition System for Grasping
Learning Visual Features that Predict Grasp Type and Location
Brain-machine Interfaces for Advanced Prosthetic Devices |
| 2007-current | Teaching Assistant, School of Computer Science, OU
Courses:
CS 4163/5163: Embedded Systems
AME 3623: Embedded Real-Time Systems |
| 2005-2007 | Secretary, Society of Chinese Students and Scholars at OU
Focus:
Website Construction |

- 2004-2005 Department Manager, Dalian JianYuan Software System Co.,Ltd.
Focus:
 Control Software Development
- 2003-2004 Robot Contest Team Member, School of Mechanical Engineering, DUT
Focus:
 Control System of Wheeled Mobile Robots
 Mobile Multi-handed Robot
- 2002-2003 Research Assistant, Department of Automation, DUT
Focus:
 Class Experimental Equipment Design
- 2002-2003 Secretary, DUT Student Guild

Honors and Awards

- 1st Class Scholarship, 2001 Outstanding Student Award, DUT
- 2002 Outstanding Student Award, School of Electronic and Information Engineering, DUT
- Third Prize Winner, DUT Advanced Mathematics Contest 2001
- Medal of Excellence, CCTV University Robot Contest, 2004
- First Prize, Mechanical Design Contest, Liaoning Province, China, 2004
- Second Prize, National Mechanical Innovative Design Contest, Northeast Region, China, 2004
- 2008-current, Computer Science Graduate Foundation Fellowship, University of Oklahoma

Publications

Thesis

[*A 3D Feature-based Object Recognition System for Grasping.*](#) Master's Thesis, School of Computer Science, University of Oklahoma, 2007

Articles in Preparation/Submitted

Wang, D. and Fagg, A. H. (submitted to ICRA 2010) [*Learning Visual Features that Predict Grasp Type and Location*](#)

Refereed Conference and Workshop Publications

Wang, D., Watson, B. T., Fagg, A. H. (2007) [*A Switching Control Approach to Haptic Exploration for Quality Grasps.*](#) Proceedings of the Robotics: Science & Systems 2007 Workshop on Sensing and Adapting to the Real World, Electronically Published

Fagg, A. H., Hatsopoulos, N. G., London, B., Reimber, J., Solla, S., Wang, D., Miller, L. E. (2009) Toward a Biomimetic, Bidirectional, Brain Machine Interface, IEEE Engineering in Medicine and Biology Society

Book Chapters

de Granville, C., Wang, D., Southerland, J., Platt, Jr. R., and Fagg, A. H. (2009), [*Grasping Affordances: Learning to Connect Vision to Hand Action.*](#) "The Path to Autonomous Robots; Essays in Honor of George A. Bekey" (Gaurav S. Sukhatme, Ed.), Springer

Conference Abstracts and Non-Refereed Conference Papers

Wang, D. (2008), [*A feature based Aspect recognition algorithm.*](#) OU Spring Research Conference, April 2008