

# Jiaming Zhang

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My research interest focuses on investigating the behaviours and emotions of robots, involving synthesizing/detecting/recognizing convincing and believable robot facial expressions for potential academic and industrial interest. The main research areas are: Artificial Intelligence, Affective Computing, Robotics, Human Robot Interaction (HRI), etc.

## Education

**2008-2013 Ph.D. in Computer Science, Dept. of Computer Science, University of Sheffield, UK**

**Co-Supervisors: Dr. Amanda J. C. Sharkey, and Professor Noel E. Sharkey**

**Thesis Title:** *Contextual Recognition of Robot Emotions* (partially funded by University of Sheffield Doctoral Studentship)

**2007-2008 M.Sc. in Control Systems, Dept. of Automatic Control and Systems Engineering, University of Sheffield, UK**

**Supervisor: Dr. Alan S. Morris**

**Dissertation Title:** *Wireless Control of a Mobile Robot*

**2003-2007 B.Sc. in Communication Engineering, Dept. Of Communication Engineering, Chongqing University, Chongqing, PR China**

**Dissertation Title:** *Design of a Low-pass Filter Using Matlab*

## Employment

**2010- 2011 Teaching Assistant, Dept. of Computer Science, University of Sheffield, UK**

Teaching modules include:

1. COM161 Introduction to Programming and Problem-Solving (Autumn Semester, 2010-2011, MATLAB and Java Based).
2. COM2004: Data Driven Computing (Autumn Semester, 2010-2011, **machine learning and pattern processing**, and it is MATLAB and Java Based).
3. COM2001 Advanced Programming Techniques 2010-11 (Haskell Programming)
4. COM162 Object Oriented Design and Programming with Java (SPRING 2010~11)
5. COM2005~3005 Bio-Inspired Computing and Robotics (SPRING 2010~11, and it is Java Based)
6. Software Hut (SPRING 2010~11, managing four teams to develop their software projects for their external business clients, e.g., developing forums in Java or a similar object oriented language)

## Technical skills

- ◆ Computing skills: Strong background in C, Java, Haskell, Matlab and VB, have considerable experience in C++, VHDL, Assembly Language, and C#.
- ◆ Robot platforms: Arduino (an open-source electronics prototyping platform) robots, CIM (a mechanical robot head), Lego robots (Lego NXT), Rwi B12 robot.
- ◆ Other applications: using Sun SPOTs or Android smart phones/tablets to control robots.

- ◆ Statistical Skills: Advanced user of PASW Statistics (or SPSS Statistics), user of R. Rich knowledge in Probability and Statistics including hypothesis testing.
- ◆ Very familiar with the Facial Action Coding System (FACS), and have considerable experience in using facial expressions detecting software such as eMotion developed by a group of Dutch researchers.

## Language Skills

English: good speaking/writing skills and more than 4 years studying and working in the UK (pictures below show what I looked like in the UK)



## Publication List

- ◆ **Zhang J.**, Contextual Recognition of Robot Emotions, Doctoral Thesis, University of Sheffield, DOI: <http://etheses.whiterose.ac.uk/3809/>. (2013)
- ◆ **Zhang, J.**, and Sharkey, A.J.C.: It's Not All Written on the Robot's Face. **Robotics and Autonomous Systems**, Volume 60, Issue 11, Pages 1449–1456. DOI: <http://dx.doi.org/10.1016/j.robot.2012.05.017>. SCI indexed number: 20124415612979. (2012)
- ◆ **Zhang, J.**, and Sharkey, A.J.C.: Contextual Recognition of Robot Emotions. In R. Groß et al. (Eds.) **TAROS 2011**, LNAI 6856, pp. 78-89. EI indexed number: 20113814341309. (2011a)
- ◆ **Zhang, J.**, and Sharkey, A.J.C.: Listening to Sad Music While Seeing a Happy Robot Face. In B. Mutlu et al. (Eds.) **ICSR 2011**, LNAI 7072, pp. 173-182. EI indexed number: 20114814566039. (2011b)

## Conferences and Presentations

- ◆ Delivered an oral presentation entitled “*Contextual Recognition of Robot Emotions*” at **TAROS 2011**, Sheffield Hallam University, UK.
- ◆ Delivered an oral presentation entitled “*Listening to Sad Music While Seeing a Happy Robot Face*” at **ICSR 2011**, the University of Amsterdam, The Netherlands.
- ◆ Presented a poster entitled “*An Investigation of How Users Perceive the Facial Expressions of an Emotional Robot*” at the research away day, Sheffield University, UK. (2009)
- ◆ Presented a poster entitled “*Contextual Recognition of Robot Emotions*” at the research away day, Sheffield University, UK. (2011)

## References

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