

# Song Qi

Caltech, 1200 East California Blvd  
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4<sup>th</sup> Year PhD student

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## EDUCATION

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- 8/2016–Present    **PhD Candidate: California Institute of Technology** (Caltech), USA  
Investigating fear and anxiety in ecologically valid contexts with fMRI and computational models.  
Supervisors: Dean Mobbs, John O’Doherty and Ralph Adolphs
- 6/2014–8/2016    **PhD Candidate: Columbia University in the City of New York**, USA  
How Social factors influence human decision making under threat  
Supervisors: Dean Mobbs and James Curley
- 8/2010–6/2014    **BSc Electronic Information & Biomedical Engineering** (Hons): **UESTC**, China  
Ying Cai Experimental School (School of Honor, Top 5% undergrads)  
Supervisors: Keith M. Kendrick and Benjamin Becker

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## PUBLICATIONS

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- Qi S.**, Hassabis, D., Sun J., Guo, F., Daw N., Mobbs, D. (2018). How cognitive and reactive fear circuits optimize escape decisions in humans, **Proceedings of the National Academy of Sciences** 115 (12), 3186-3191
- Qi S.\***, Footer O.\*, Camerer, C.F. and Mobbs, D. (2018). A collaborator’s reputation can bias decisions and anxiety under uncertainty, **Journal of Neuroscience** 38 (9), 2262-2269
- Qi S.\***, Hu J.\*, Becker B.\*, Luo L., Gao S., Gong Q., Hurlemann R. and Kendrick K.M. (2015). Oxytocin selectively facilitates learning with social feedback and increases activity and functional connectivity in emotional memory and reward processing regions, **Human Brain Mapping** 36(6), 2132-2146
- Qi S.\***, Fung B.\*, Hassabis, D., Daw N., Mobbs D. (in prep). The ventral hippocampus-medial prefrontal pathway is swayed by trait anxiety for slow, but not fast, escape decisions.
- Yao, S., **Qi S.**, Kendrick, K.M. and Mobbs, D. (2018). Attentional Set to Safety recruits the ventromedial PFC, bioRxiv,

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## ACADEMIC WORK EXPERIENCE

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- 9/2014–present    Research Assistant: Mobbs Lab for Social, Affective and Ecological Neuroscience, Caltech, USA  
Fear and decision making under threat, with **fMRI** techniques and **computational modelling**  
Supervisors: Dean Mobbs, in collaboration with John O’Doherty and Ralph Adolphs
- 3/2012–6/2014    Research Assistant: Social Cognition and Affective Neuroscience Group, UESTC, China  
**Oxytocin’s** selective facilitation of socially reinforced learning  
Supervisors: Keith M. Kendrick, Benjamin Becker and Jiehui Hu
- 6/2013–7/2013    Visiting Research Assistant, Neuromodulation of Emotion Group, Universität Bonn, Germany  
**Experimental TMS therapy for depression patients**  
Supervisor: Rene Hurlemann
- 7/2013–10/2013    Visiting Research Assistant, Immunotrafficking lab, University of Manitoba, Canada  
Collective Electrotaxis of Epithelial Cell  
Supervisor: Francis Lin

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## ACADEMIC AWARDS AND HONOURS

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- 9/2014            **Dean’s Fellowship**  
Columbia University in the City of New York
- 6/2014            **Outstanding Student**  
University of Electronic Science and Technology of China, 10 out of 4,500 undergrads
- 8/3/2017         **Honorable Mention**  
The 2013 ICM (Interdisciplinary Contest of Modelling)
- 8/12/2016        **National Scholarship**  
Ministry of Education of China, Awarded to the top 1% students

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## CONFERENCE PRESENTATIONS (SELECTION)

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### Talks:

**Qi S.**, Hassabis, D., Sun J., Guo, F., Daw N., Mobbs, D. (2018) "Cognitive/reactive fear circuits and decision under threat". @Society for Affective Science, 5th Annual Conference, Los Angeles, USA

**Qi S.**, Hassabis, D., Sun J., Guo, F., Daw N., Mobbs, D. (2017) "How Cognitive and reactive fear circuits optimize escape decisions in humans".

@Social & Affective Neuroscience Society, 10th Annual Meeting, Los Angeles, USA

### Posters:

**Qi S.**, Hassabis, D., Sun J., Guo, F., Daw N., Mobbs, D. (2018) "How Cognitive and reactive fear circuits optimize escape decisions in humans". Society for Affective Science, 5th Annual Conference, Los Angeles, USA

**Qi S.\***, Footer O.\*, Camerer, C.F. and Mobbs, D. (2016). "A collaborator's reputation can bias decisions and anxiety under uncertainty". Social & Affective Neuroscience Society, 9<sup>th</sup> Annual Meeting, New York

**Qi S.\***, Hu J.\*, Luo L., Gao S., Becker B., Gong Q., Hurlmann R., Kendrick K.M. (2013) Oxycontin facilitates learning with social feedback and activity in emotion and reward regions. 2013 Annual Conference of Society for Social Neuroscience, Guangzhou, China

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## SKILLS

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Techniques	<b>fMRI</b> (with SPM and FSL analytical tool box), <b>Multi-voxel pattern analysis</b> (with PyMVPA) <b>Computational modelling</b> and machine learning (e.g. SVMs)
Programming	Experienced with <b>MATLAB</b> , <b>Python</b> and <b>R</b> . Working knowledge for C++ and JAVA.
Languages	Chinese (native), English (fluent), Japanese (fair)
Tools	SPSS, Psychtoolbox, Cogent, Adobe Illustrator, Adobe Photoshop, Inkscape, LaTeX.

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## TEACHING & SUPERVISION

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9/2014-9/2016	Introduction to Psychology (Teaching assistant with guest lectures) With Patricia Lindemann, Columbia University in the City of New York
3/2018–Present	Principles of Cognitive Neuroscience (Teaching assistant) With Dean Mobbs, Caltech