

# Zetao Chen

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## Contact Details

Zetao Chen | Research Fellow | School of Electronic Engineering and Computer Science  
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## Research Interest:

**Robot Localization; Biologically-inspired Robotics; Machine Learning**

## Working Experience:

11/2016 - present Research fellow in ETH Zurich working in robot localization and SLAM.

05/2016 - 09/2016 Postdoc Fellow in QUT

## Teaching:

Guest lecturer in the course "**Autonomous Mobile Robots**" at ETH, Zurich

## Education:

11/2012 – 05/2016 PhD Candidate in Robotics PhD thesis: [Biologically-inspired Place Recognition with Neural Networks](#);

*Queensland University of Technology*

09/2010 - 09/2012: Master with distinction In Artificial Intelligence ( **HSP Huygens Scholarship** receipt 173 out of 2300)

*University of Groningen (Netherlands)*

*Thesis Topic: Supervised Feature Selection Based on Generalized Matrix Learning Vector Quantization ([http://www.ai.rug.nl/~mwiering/MasterThesis\\_ZetaoChen.pdf](http://www.ai.rug.nl/~mwiering/MasterThesis_ZetaoChen.pdf))*

09/2005 - 07/2009: Bachelor with honours in Information Engineering

*South China University of Technology*

## Supervisor:

Principal Supervisor: [Dr. Michael Milford](#).

Associate Supervisor: [Prof. Gordon Wyeth](#).

Associate Supervisor: [Prof. Peter Corke](#) .

## Complete Publication Lists

### Journal Paper

Adam Jacobson, **Zetao Chen** and Michael Milford, "Autonomous Multi-Sensor Calibration and Closed Loop Fusion for SLAM", (accepted) *Journal of Field Robotics (JFR)*.

**Zetao Chen**, Stephanie Lowry, Adam Jacobson, Michael E. Hasselmo and Michael Milford, "Bio-inspired Homogenous Multi-scale Place Recognition", *International Journal of Neural Network*, 2015

Chen Fan, **Zetao Chen**, Adam Jacobson, Xiaoping Hu, Michael Milford, "[Biologically-inspired visual place recognition with adaptive multiple scales](#)", *Robotics and Autonomous Systems (RAS)*, 2017

### Conference Paper

Xutao Li, **Zetao Chen**, Shouyong Wang, "An Approximate Representation of Heavy-tailed Noise: Bi-parameter Cauchy-Gaussian Mixture Model", in *9th International Conference on Signal Processing*, 2008.

Yi-li Chen, Lian-wen Jin+, **Zetao Chen**, Xu-tao Li, Chu-jia Huang, Zhen-hua Feng, "A New Method for Facial Beauty Assessment", in *Chinese Conference on Pattern Recognition 2008*.

**Zetao Chen**, Lian-wen Jin, Xu-tao Li, Yi-li Chen, Chu-jia Huang, Zhen-hua Feng, "Facial Feature Contour Extraction Using Improved Snake Mode", in *the 2009 International Forum on Information Technology and Application*.

Adam Jacobson, **Zetao Chen** and Michael Milford, "Autonomous Movement-Driven Place Recognition Calibration for Generic Multi-Sensor Robot Platforms", (Accepted) in 2013 Intelligent Robots and Systems conference (IROS 2013).

**Zetao Chen**, Adam Jacobson, Ugur M. Erdem, Michael E. Hasselmo and Michael Milford, "Bio-inspired Place Recognition over Multiple Spatial Scales", *Australia Conference on Robotics and Automation*, 2013 (**Best Paper Award**).

**Zetao Chen**, Adam Jacobson, Ugur M. Erdem, Michael E. Hasselmo, and Michael Milford, "Multi-scale Bio-inspired Place Recognition", (Accepted) *International Conference on Robotics and Automation (ICRA)*, 2014.

**Zetao Chen**, Obadiah Lam, Adam Jacobson, Michael Milford. "Convolutional Neural Network-based Place Recognition", *Australia Conference on Robotics and Automation*, 2014 (**Best Paper Finalist**).

**Zetao Chen**, Stephanie Lowry, Adam Jacobson, Zongyuan Ge and Michael Milford. "Distance Metric Learning for Feature-Agnostic Place Recognition", 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2015), hamburg.

Adam Jacobson, **Zetao Chen**, Michael Milford, "Online Place Recognition Calibration for Out-of-The-Box SLAM", 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2015), hamburg.

**Zetao Chen**, Adam Jacobson, Niko Sünderhauf, Ben Upcroft, Lingqiao Liu, Chunhua Shen, Ian Reid, Michael Milford, "Deep Learning Features at Scale for Visual Place Recognition", *International Conference on Robotics and Automation (ICRA)*, [data and code](#), 2017.

**Zetao Chen**, Fabiola Maffra, Inkyu Sa, Margarita Chli, "Only Look Once, Mining Distinctive Landmarks from ConvNet for Visual Place Recognition", 2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2017)

ZongYuan Ge, Sergey Demyanov, **Zetao Chen**, Rahil Garnavi, "Generative OpenMax for Multi-Class Open Set Classification", British Machine Vision Conference (BMVC), 2017

## **Patent:**

A video based method for facial beauty assess