# Xiaohan Fei


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## Education

**University of California, Los Angeles** — Fall 2014-present
**Ph.D. in Computer Science**
Supervisor: Prof. Stefano Soatto
Research Group: UCLA Vision Lab (http://vision.ucla.edu)
GPA: 3.88/4.0

**Zhejiang University** — Fall 2010-Spring 2014
**B.Eng. in Information and Communication Engineering**
Major: Information and Communication Engineering
Minor: Advanced honor Class of Engineering Education (ACEE), Chu-Kechen College
GPA: 3.98/4.0(92.35/100)
Title of Undergraduate Thesis: Wide-baseline feature matching for panoramic images
Undergraduate Thesis Supervisor: Prof. Zhiyu Xiang

## Research Experience

**NVIDIA Research, Santa Clara, California** — Summer 2018
**Research Intern**

**Meta Company, San Mateo, California** — Summer 2017
**Research Intern**
Developed a tightly-coupled visual-inertial SLAM algorithm for Augmented Reality.

**University of California, Los Angeles** — Fall 2014-present
**Graduate Student Researcher**
Conducting research activities under the supervision of Prof. S. Soatto. Main projects include: visual place recognition, fast image based re-localization and visual-inertial sensor fusion for navigation, semantic mapping & object detection.

**Zhejiang University, China** — Fall 2013-Spring 2014
**Undergraduate Thesis**
Developed a Structure from Motion system for panoramic images captured by a camera mounted on a vehicle where scale, orientation and planar motion constraints are explored to improve wide-baseline feature matching.

## Awards & Distinctions

**2013:** Meritorious Winner of Mathematical Contest in Modeling (top 15% of 6000 teams worldwide)
**2012:** National Scholorship (highest hornor for undergraduates in China)

## Publications

**[1]** X. Fei, A. Wong, and S. Soatto. Geo-Supervised Visual Depth Prediction. Under review.
**[2]** X. Fei, S. Soatto. Visual-Inertial Object Detection and Mapping. To appear ECCV, 2018.
**[3]** J. Dong*, X. Fei*, and S. Soatto. Visual-Inertial-Semantic Scene Representation for Object Detection. CVPR, 2017.
**[4]** X. Fei, K. Tsotsos, and S. Soatto. A Simple Hierarchical Pooling Data Structure for Loop Closure. ECCV, 2016.

## Professional Services

Reviewer of ICCV 2017,
International Journal of Medical Robotics and Computer Assisted Surgery (IJMRCAS).

## Talks & Workshops

Visual-Inertial-Semantic Scene Representation, Bridges to 3D Workshop, CVPR 2017

## Teaching

Spring 2018, CS M152A Introductory Digital Design Laboratory

## Relevant Coursework

**University of California, Los Angeles:** Machine Perception (Prof. S. Soatto), Convex Optimization (Prof. L. Vandenberghe), Calculus of Variations (Prof. L. Vese), Vision as Bayesian Inference (Prof. A. Yuille), Applied Probability (Prof. Y. Wu), Theoretical Statistics (Prof. A. Amini), Numerical Analysis (Prof. J. Teran), Machine Learning Algorithm (Prof. M. Sarrafzadeh)
**Zhejiang University:** Computer Vision (Pof. Z. Xiang), Spectral Analysis of Signals (Prof. X. Gong), Information Theory (Prof. Z. Zhang), Mathematical Modeling (Prof. Q. Yang)