

Xiaohan Fei

E-mail: hzhshfxh@gmail.com Website: <https://feixh.github.io>

EDUCATION	UNIVERSITY OF CALIFORNIA, LOS ANGELES Ph.D. in Computer Science Supervisor: Prof. Stefano Soatto Research Group: UCLA Vision Lab (http://vision.ucla.edu) GPA: 3.88/4.0	Fall 2014 - Fall 2019
	ZHEJIANG UNIVERSITY 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	Fall 2010 - Spring 2014
RESEARCH INTERESTS	6 DoF localization, 3-D reconstruction, and semantic scene understanding in multi-sensor settings by leveraging nonlinear filtering, optimization, and learning-based approaches.	
RESEARCH EXPERIENCE	SURREAL TEAM, FACEBOOK REALITY LABS, REDMOND, WASHINGTON Research Scientist Computer vision, AR/VR	Fall 2019 - present
	NVIDIA RESEARCH, SANTA CLARA, CALIFORNIA Research Intern Worked on unsupervised learning of structural representation for 3D objects.	Summer 2018
	META COMPANY, SAN MATEO, CALIFORNIA Research Intern Developed a tightly-coupled visual-inertial SLAM system for Augmented Reality.	Summer 2017
	UNIVERSITY OF CALIFORNIA, LOS ANGELES Graduate Student Researcher Conducting research activities under the supervision of Prof. S. Soatto. Main projects include: image based re-localization, visual-inertial sensor fusion and object-level (semantic) mapping.	Fall 2014 - Fall 2019
AWARDS & DISTINCTIONS	2019: Best Paper Award in Robot Vision, out of 2900 submissions, at ICRA 2019 2013: Meritorious Winner of Mathematical Contest in Modeling (top 15% of 6000 teams world-wide) 2012: National Scholarship (the highest honor for undergraduates in China)	
PUBLICATIONS	[1] A. Wong*, X. Fei*, and S. Soatto. VOICED: Depth Completion from Inertial Odometry and Vision. (under review, 2019) [2] X. Fei, A. Wong, and S. Soatto. Geo-Supervised Visual Depth Prediction. In <i>International Conference on Robotics and Automation (ICRA)</i> , 2019. (Best Paper in Robot Vision) Also in <i>IEEE Robotics and Automation Letters (RA-L)</i> . [3] X. Fei, S. Soatto. Visual-Inertial Object Detection and Mapping. In <i>European Conference on Computer Vision (ECCV)</i> , 2018. [4] J. Dong*, X. Fei*, and S. Soatto. Visual-Inertial-Semantic Scene Representation for Object Detection. In <i>Computer Vision and Pattern Recognition (CVPR)</i> , 2017. [5] X. Fei, K. Tsotsos, and S. Soatto. A Simple Hierarchical Pooling Data Structure for Loop Closure. In <i>European Conference on Computer Vision (ECCV)</i> , 2016.	
PROFESSIONAL SERVICES	Reviewer of major computer vision (CVPR, ICCV, and ECCV), and robotics (ICRA, IROS) conferences.	
OPEN SOURCE	XIVO: Xiaohan's Inertial-aided Visual Odometry https://github.com/ucla-vision/xivo For the rest, see my github page: https://github.com/feixh	

TALKS & WORKSHOPS	<i>Inertial-aided Visual Perception for Localization, Mapping, and Detection</i> , at MagicLeap, Microsoft Research, Facebook Reality Labs, 2019. <i>Visual-Inertial-Semantic Scene Representation</i> , at Bridges to 3D Workshop, CVPR 2017.
TEACHING	CS M152A Introductory Digital Design Laboratory, Spring 2018.
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 (Prof. Z. Xiang), Spectral Analysis of Signals (Prof. X. Gong), Information Theory (Prof. Z. Zhang), Mathematical Modeling (Prof. Q. Yang)
RELEVANT SKILLS	Programming Language: C++, Python, MATLAB, OpenGL, Android Software Framework: ROS, OpenCV, Eigen, TensorFlow