Feng Gao

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EDUCATION

University of California, Los Angeles, Los Angeles, California, USA   Sep 2017 – Present

- Ph.D. Candidate in Statistics
  - Adviser: Prof. Song-Chun Zhu
  - Research Areas: Artificial Intelligence, Computer Vision and Robotics
  - Focus Topics: Reinforcement Learning, Visual Concept Reasoning and Robotic Learning
  - Funded by: DARPA SIMPLEX, DARPA XAI, ONR-MURI
  - Collaborated with Jet Propulsion Laboratory

University of Southern California, Los Angeles, California, USA   Aug 2015 – May 2017

- M.S. in Computer Science

University of Electronic Science and Technology of China (UESTC)   Sep 2011 – Jun 2015

- B.Eng. in Software Engineering
  - Graduated with Honors

RESEARCH EXPERIENCE

Center for Vision, Cognition, Learning and Autonomy, UCLA

- Graduate Student Researcher, Statistics Department   Sep 2017 – Present
  - Research Interest: Artificial Intelligence in Robotics
  - Adviser: Prof.Song-Chun Zhu
  - Focus Areas: Robotics, Computer Vision, Artificial Intelligence
- Visiting Graduate Researcher, Statistics Department   Jul 2016 – Aug 2017
  - Project: Human Robot Collaboration
  - Adviser: Prof.Song-Chun Zhu

International Center for Artificial Intelligence and Robot Autonomy (CARA)   Sep 2017 – Sep 2019

- Robotics Research Engineer Intern
  - Research Interest: Computer Vision, Artificial Intelligence, Machine Learning in Robotics
  - Supervisor: Dr. Yixin Zhu

PUBLICATIONS

UNDER REVIEW

- A Tale of Two Explanations: Enhancing Human Trust by Explaining Robot Behavior
  M. Edmonds*, **F. Gao***, H. Liu*, X. Xie*, S. Qi, B. Rothrock, Y. Zhu, Y.N. Wu, H. Lu, S.-C. Zhu
  Science Robotics (under review)

- Generalized Boltzmann Policy: Towards Exploration-Efficient Hierarchical Reinforcement Learning
  F. Gao, B. Jia, S. Qi, Y. Zhu, S.-C. Zhu *(AAAI 2020, under review)*

CONFERENCES

- Learning Perceptual Inference by Contrasting
  C. Zhang, B. Jia, **F. Gao**, Y. Zhu, H. Lu, S.-C. Zhu
  33rd Conference on Neural Information Processing Systems (NeurIPS 2019, spotlight)

- VRGym: A Virtual Testbed for Physical and Interactive AI (Best Paper Award)
  X. Xie, H. Liu, Z. Zhang, Y. Qiu, **F. Gao**, S. Qi, Y. Zhu, S.-C Zhu
  Association for Computing Machinery Turing Celebration Conference (ACM TURC 2019)

- RAVEN: A Dataset for Relational and Analogical Visual rEasoNing
  C. Zhang*, **F. Gao***, B. Jia, Y. Zhu, S.-C. Zhu (* Joint First Authors)
  Conference on Computer Vision and Pattern Recognition 2019 (CVPR 2019)

- Unsupervised Learning of Hierarchical Models for Hand-Object Interactions using Tactile Glove
  X.Xie*, H.Liu*, M.Edmonds, **F. Gao**, S.Qi, Y.Zhu, B.Rothrock, S.-C. Zhu (* Joint First Authors)
  IEEE International Conference on Robotics and Automation 2018 (ICRA 2018)

- Feeling the Force: Integrating Force and Pose for Fluent Discovery through Imitation Learning to Open Medicine Bottles
  M. Edmonds*, **F. Gao***, X. Xie, H. Liu, S. Qi, Y. Zhu, B. Rothrock, S.-C. Zhu (* Joint First Authors)
  30th International Conference on Intelligent Robots and Systems (IROS 2017)

- A Glove-based System for Studying Hand-Object Manipulation via Pose and Force Sensing
  H. Liu*, X. Xie*, M. Millar*, M. Edmonds,
  F. Gao, Y. Zhu, V. J. Santos, B. Rothrock, S.-C. Zhu (* Joint First Authors)
  30th International Conference on Intelligent Robots and Systems (IROS 2017)

PRESENTATIONS

Oral Presentations

- Feeling the Force: Integrating Force and Pose for Fluent Discovery
  through Imitation Learning to OpenMedicine Bottles
  IROS 2017, Vancouver, Canada

Poster Presentations

- RAVEN: A Dataset for Relational and Analogical Visual rEasoNing
  CVPR 2019, Long Beach, USA & MURI 2019, Edinburgh, UK

AWARDS & SCHOLARSHIPS

- Outstanding Reviewer, CVPR — 2019
  For reviewers contributed at least two reviews noted as excellent by area chairs
- Doctoral Student Travel Grants, UCLA — 2017 – 2019
- First Class People's Scholarships, UESTC — 2012 – 2014
  For Top 5% students in their major
- Honor Award of Graduation, UESTC — Jun 2015
  For student who got top graduate school offers

PROFESSIONAL APPOINTMENTS & SERVICES

Conference Reviewer

- Reviewer, AAAI — 2020
- Reviewer, ICCV — 2019
- Reviewer, CVPR — 2019
- Reviewer, ICRA — 2018

Conference Organization

- Student Organizer, MURI Annual Review Meeting, UCLA Aug 2017

Program Reviewer

- Reviewer, Fall 2018,2019 UCLA Computer Science Master's Program, UCLA
- Reviewer, 2018 Cross-disciplinary Scholars in Science and Technology program (CSST), UCLA

Teaching Assistant

- 2017 Fall Reader, Statistics Department, UCLA
- 2013 Fall Teaching Assistant, UESTC, China

PROFESSIONAL SKILLS

Programming Language
Python, C++, Matlab

Frameworks & Softwares
Pytorch, ROS, Tensorflow, Matlab, Pyro