

EDUCATION

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- **University of Southern California** Los Angeles, CA  
PhD in Computer Science with Joseph Lim, GPA: 4.0/4.0 (Spring 2020) since Aug. 2018
- **University of Pennsylvania** Philadelphia, PA  
Fulbright Visiting Scholar in Computer Science; GPA: 4.0/4.0 Aug. 2017 – May 2018
- **Technical University Dresden** Dresden, Germany  
Diploma in Electrical Engineering, GPA: 4.0/4.0 (with distinction) Aug. 2012 – Aug. 2017

PUBLICATIONS

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- K. Pertsch\***, O. Rybkin\*, J. Yang, S. Zhou, K. G. Derpanis, J. Lim, K. Daniilidis, A. Jaegle, 'Keyframing the Future: Keyframe Discovery for Visual Prediction and Planning', Conference on Learning Dynamics for Control, 2020. [arxiv.org/abs/1904.05869](https://arxiv.org/abs/1904.05869)
- O. Rybkin\*, **K. Pertsch\***, K. G. Derpanis, K. Daniilidis, A. Jaegle, 'Learning what you can do before doing anything', International Conference on Learning Representations (ICLR), 2019.  
[openreview.net/forum?id=SylPMnR9Ym](https://openreview.net/forum?id=SylPMnR9Ym)
- O. H. Jaffari\*, S. K. Mustikovela\*, **K. Pertsch**, E. Brachmann, C. Rother, 'iPose: Instance-Aware 6D Pose Estimation of Partly Occluded Objects', Asian Conference on Computer Vision (ACCV), 2018.  
[arxiv.org/abs/1712.01924](https://arxiv.org/abs/1712.01924)

EXPERIENCE

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- **RAIL Lab, UC Berkeley** Berkeley, CA  
Visiting Researcher, Supervisor: Sergey Levine Feb. 2019 - Jul. 2019
  - **Recursive Event-Driven Video Prediction:** Long-horizon, goal-conditioned planning with recursive, tree-structured prediction model.
- **CLVR Lab, University of Southern California** Los Angeles, CA  
Research Assistant, Supervisor: Joseph Lim since August 2018
  - **Video Prediction with Temporal Hierarchy:** Learn to predict future video frames using recurrent latent variable model in hierarchical framework with varied temporal intervals between predicted keyframes.
- **GRASP Lab, University of Pennsylvania** Philadelphia, PA  
Fulbright Visiting Scholar, Supervisor: Kostas Daniilidis Aug. 2017 - May 2018
  - **Unsupervised Learning of Action Representations:** Learn a representation of an agent's action space via variational video prediction just from raw videos & perform action conditioned video prediction + visual servoing.
- **Computer Vision Lab Dresden** Dresden, Germany  
Diploma Thesis, Supervisor: Carsten Rother Apr. 2017 - Aug. 2017
  - **Object Pose Estimation:** Design, implement and test a pipeline for 6DoF pose estimation of objects from single RGB/RGB-D input images. Used dataset features texture-less objects and heavy occlusion.
- **Institute of Automotive Engineering Dresden** Dresden, Germany  
Research Assistant, Supervisor: Bernard Bäker Apr. 2016 - Jan. 2017
  - **Reinforcement Learning:** Develop a Reinforcement Learning framework for learning energy-optimal driving strategies for hybrid-electric vehicles.

SCHOLARSHIPS AND AWARDS

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- **Fulbright Scholarship:** Awarded by the US government for academic excellence and social commitment. Aug. 2017
- **Best Diploma in EE@TU Dresden:** Awarded by the Faculty of Electrical and Computer Engineering. Aug. 2017
- **Year's Best Pre-Diploma:** Awarded by the Faculty of Electrical and Computer Engineering. Aug. 2014
- **Deutschlandstipendium:** National scholarship for outstanding academic achievements. Oct. 2013 - Sep. 2017