

COLIN GRABER

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EDUCATION

University of Illinois Urbana-Champaign

Expected May 2022

Ph.D in Computer Science

Research Focus: Machine Learning

Purdue University

May 2015

B.S. in Computer Engineering

PUBLICATIONS

C. Graber, G. Tsai, M. Firman, G. Brostow, and A. Schwing. Panoptic segmentation forecasting. In *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021

C. Graber and A. Schwing. Dynamic neural relational inference. In *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020

C. Graber and A. Schwing. Graph structured prediction energy networks. In *Advances in Neural Information Processing Systems*, 2019

C. Graber, R. Loh, Y. Vlasov, and A. Schwing. Unsupervised discovery of dynamic neural circuits. In *Real Neurons & Hidden Units Workshop, NeurIPS*, 2019

C. Graber, O. Meshi, and A. Schwing. Deep structured prediction with nonlinear output transformations. In *Advances in Neural Information Processing Systems*, 2018

A. Narayan-Chen, C. Graber, M. Das, M. R. Islam, S. Dan, S. Natarajan, J. R. Doppa, J. Hockenmaier, M. Palmer, and D. Roth. Towards problem solving agents that communicate and learn. In *Proceedings of the First Workshop on Language Grounding for Robotics*, pages 95–103, 2017

HONORS AND AWARDS

Outstanding Reviewer, ICCV 2021

Best Paper, CVPR Workshop on Precognition: Seeing Through the Future, 2020

State Farm Doctoral Scholar, 2019

Top 400 Reviewer, **Conference on Neural Information Processing Systems**, 2019

NSF Graduate Research Fellowship Program Honorable Mention, 2016

Top Poster Award, Purdue Summer Undergraduate Research Fellowship Symposium, 2013

Summer Undergraduate Research Fellowship, Purdue College of Engineering, 2013

INDUSTRY EXPERIENCE

Niantic - Research Intern

May 2020–November 2020

AR Team

- Developed panoptic segmentation forecasting task, leading to CVPR publication

Google - Research Intern

May 2019–August 2019

OCR Team

- Worked on efficient and accurate single-stage text detection
- Investigated different model backbones and inference approaches with the goal of matching or surpassing state-of-the-art two-stage text detection models with a single-stage approach

Facebook - Software Engineering Intern

May 2015 - August 2015

Data Science Infrastructure Team

- Developed backend of tool which monitored experiments run on A/B testing platform to ensure valid results

Hulu - Software Developer Intern

June 2014 - August 2014

Data/Metrics Team

- Created tool to help other developers test features related to data collection
- Wrote code in Java, Python, HTML, CSS, and JavaScript
- Interfaced with the Apache Kafka and Avro open source libraries

TEACHING EXPERIENCE

Intro to Machine Learning (UIUC) Teaching Assistant

Fall 2016; Spring 2018

- Ran weekly discussion section (during Fall 2016 session)
- Wrote homework/exam problems

Computer Networks (Purdue) Teaching Assistant

August 2014-December 2014

- Developed course assignments providing experience with implementing networking systems
- Wrote scripts for automatic grading of assignments

TECHNICAL SKILLS

Coding Language Experience

- Proficient in Python, Java
- Experience with PyTorch and Tensorflow frameworks
- Experience with HTML, CSS, Matlab, C, C++