

CHARLES SCHAFF

Reinforcement Learning, Robotics, Deep Learning

📧 cbschaff@ttic.edu 📧 6045 S Kenwood Ave, Chicago IL, 60637 📍 Chicago, IL
🌐 home.ttic.edu/~cbschaff/ 🐦 @chip_schaff 🌐 cbschaff



WORK EXPERIENCE

Software Engineering Intern

Google Inc.

📅 07/2019-09/2019 📍 Sunnyvale, CA

I worked with several teams across Google and DeepMind to explore how Imitation Learning and Reinforcement Learning could be used to improve rate control in libvpx, Google's open source video codec library.

Software Engineering Intern

Google Inc.

📅 05/2015-08/2015 📍 Mountain View, CA

I worked with the Google Maps team to develop Machine Learning techniques for Google's semantic location ranking system. Specifically, I used decision trees to improve the capability of their feature engineering pipeline.

Software Developer and Intern

Epic Systems

📅 05/2014-08/2014 📍 Verona, WI

I worked with Epic's transplant team, Pheonix, to develop algorithms for efficient kidney allocation in paired kidney exchanges.

PUBLICATIONS

Residual Policy Learning for Shared Autonomy

Charles Schaff and Matthew R. Walter

📅 Robotics Science and Systems (RSS) 2020

Jointly Learning to Construct and Control Agents using Deep Reinforcement Learning

Charles Schaff, David Yunis, Ayan Chakrabarti, Matthew R. Walter

📅 International Conference on Robotics and Automation (ICRA) 2019

Jointly Optimizing Placement and Inference for Beacon-based Localization

Charles Schaff, David Yunis, Ayan Chakrabarti, Matthew R. Walter

📅 International Conference on Intelligent Robots and Systems (IROS) 2017

Bayesian Optimization for Automated Model Selection

Gustavo Malkomes, Charles Schaff, Roman Garnett

📅 Conference on Neural Information Processing Systems (NeurIPS) 2016

Grasp and Motion Planning for Dexterous Manipulation for the Real Robot Challenge

Takuma Yoneda, Charles Schaff, Takahiro Maeda, Matthew Walter

📅 ArXiv, Winning submission of the Real Robot Challenge 2020

EDUCATION

Ph.D. Candidate in Computer Science

Toyota Technological Institute at Chicago

📅 Sept 2016 - Present

M.S. in Computer Science

Toyota Technological Institute at Chicago

📅 Sept 2016 - Sept 2018

GPA: 3.94/4.0

B.S. in Computer Science and Math

Washington University in St Louis

📅 Sept 2012 - May 2016

Summa Cum Laude, GPA: 3.95/4.0

TEACHING EXPERIENCE

TTIC 31170: Planning, Learning and Estimation for Robotics

Teaching Assistant - 2019

TTIC 31150: Mathematical Toolkit

Teaching Assistant - 2017

WUSTL 511A: Introduction to Artificial Intelligence

Teaching Assistant - 2015, 2014

WUSTL 517A: Machine Learning

Teaching Assistant - 2015

WUSTL 417T: Introduction to Machine Learning

Teaching Assistant - 2014

WUSTL 260: Introduction to Digital Logic and Computer Design

Teaching Assistant - 2013

STRENGTHS

Python PyTorch Tensorflow ROS

Hard-working Independent

Communicator Collaborator