

Joshua Zhanson

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Education

Carnegie Mellon University Language Technologies Institute
M.Sc., Master's of Language Technologies

Pittsburgh, PA
Aug 2020 - May 2022

Carnegie Mellon University School of Computer Science
B.S. Computer Science with honors, minor in Machine Learning
QPA: 4.00 Dean's List: Fall 2016 - Spring 2019

Pittsburgh, PA
Aug 2016 - May 2020

Senior thesis: [Investigating and Robustifying Proximal Policy Optimization](#)

Advised by Emilio Parisotto, Adarsh Prasad, and Ruslan Salakhutdinov

15-410 Operating Systems ~ 16-831 Statistical Techniques in Robotics

15-418 Parallel Computer Architecture & Programming ~ 15-458 Discrete Differential Geometry

15-462 Computer Graphics ~ 15-312 Programming Languages ~ 10-703 Deep Reinforcement Learning

Research + Projects

[Proprioceptive Spatial Representations for Generalized Locomotion](#)

June 2018 - July 2019

Joshua Zhanson, Emilio Parisotto, Ruslan Salakhutdinov

Developed JSONWalker environment for robot locomotion and GUI editor to easily construct robot bodies in box2d physics simulator. Wrote scripts in **Python** to randomize robot bodies, build datasets, and evaluate policies on those datasets. Trained **PyTorch** convolutional models and co-authored paper. Accepted to **Workshop on Structure & Priors in Reinforcement Learning** at ICLR 2019.

Teaching

15-213 Introduction to Computer Systems TA

Summer 2019, Summer 2020

10-703 Deep Reinforcement Learning and Control TA

Fall 2019

15-300 Research and Innovation in Computer Science TA

Fall 2019

Employment

Merit International, Inc. (formerly Sigma Accolade, Inc.)
Software Engineer Intern

Millbrae, CA
May 2018 - Aug 2018

Implemented a feature that allows Orgs to disallow duplicate Merits issued to the same user by adding **React** components in **JavaScript** linked to the **Scala** backend with as-you-type **GraphQL** mutations and queries, using **Cats** type abstractions for error handling and threading errors to the frontend UI

Awards

NSF Graduate Research Fellowship recipient

April 2020

Skills

Languages: Python ~ C/C++ ~ Javascript ~ Scala ~ Standard ML ~ Java ~ Bash

Technologies: Pytorch ~ Tensorflow/Keras ~ Numpy ~ Pandas ~ Docker ~ Git ~ React ~ Typelevel.Cats