

Matthew Wallingford

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EDUCATION

University of Washington, Seattle

2019 - present

PhD student in Computer Science and Engineering advised by Prof. Ali Farhadi

Cornell University

2013 - 2019

Master of Science in Computer Science, advised by Prof. Bharath Hariharan

Bachelor of Arts in Mathematics, minors in Computer Science and Physics

PUBLICATIONS

Preprints

* - equal contribution

1. **Neural Priming for Sample-Efficient Adaptation.**

Matthew Wallingford*, Vivek Ramanujan*, Alex Fang, Aditya Kusupati, Roozbeh Mottaghi, Aniruddha Kembhavi, Ludwig Schmidt, Ali Farhadi.
arXiv:2306.10191 (under review), 2023.

1. **Objaverse-XL: A Universe of 10M+ 3D Objects.**

Matt Deitke, Ruoshi Liu, Matthew Wallingford, Huong Ngo, Oscar Michel, Aditya Kusupati, Alan Fan, Christian Laforte, Vikram Voleti, Samir Yitzhak Gadre, Eli VanderBilt, Aniruddha Kembhavi, Carl Vondrick, Georgia Gkioxari, Kiana Ehsani, Ludwig Schmidt, Ali Farhadi.
arXiv:2307.05663 (under review), 2023.

Conference Publications

6. **Neural Radiance Field Codebooks.**

Matthew Wallingford, Aditya Kusupati, Alex Fang, Vivek Ramanujan, Aniruddha Kembhavi, Roozbeh Mottaghi, Ali Farhadi.
International Conference on Learning Representations (ICLR), 2023

5. **FLUID: A Unified Evaluation Framework for Flexible Sequential Data.**

Matthew Wallingford, Aditya Kusupati, Keivan Alizadeh-Vahid, Aaron Walsman, Aniruddha Kembhavi, Ali Farhadi.
Transactions on Machine Learning Research (TMLR), 2023.

4. **Matryoshka Representation Learning.**

Aditya Kusupati, Gantavya Bhatt, Aniket Rege, Matthew Wallingford, Aditya Sinha, Vivek Ramanujan, William Howard-Snyder, Kaifeng Chen, Sham Kakade, Prateek Jain, Ali Farhadi.
Neural Information Processing Systems (NeurIPS), 2022.

3. **Task Adaptive Parameter Sharing for Multi-Task Learning.**

Matthew Wallingford, Hao Li, Alessandro Achille, Avinash Ravichandran, Charless Fowlkes, Rahul Bhotika, Stefano Soatto.
Conference on Computer Vision and Pattern (CVPR), 2022.

2. **LLC: Accurate, Multi-purpose Learnt Low-dimensional Binary Codes.**

Aditya Kusupati, Matthew Wallingford, Vivek Ramanujan, Raghav Somani, Jae Sung Park, Krishna Pillutla, Prateek Jain, Sham Kakade, Ali Farhadi.
Neural Information Processing Systems (NeurIPS), 2021.

1. **RoboTHOR: An Open Simulation-to-Real Embodied AI Platform.**

Matt Deitke, Winson Han, Alvaro Herrasti, Aniruddha Kembhavi, Eric Kolve, Roozbeh Mottaghi, Jordi Salvador, Dustin Schwenk, Eli VanderBilt, Matthew Wallingford, Luca Weihs, Mark Yatskar, Ali Farhadi.
Conference on Computer Vision and Pattern (CVPR), 2020.

WORK EXPERIENCE

Amazon AI Lab

June - August, 2021

Research Science Intern

Advisors: Avinash Ravichandran & Charless Fowlkes

Worked on efficient models for multi-task and transfer learning. [Task Adaptive Parameter Sharing](#) published at CVPR 2022.

Microsoft

May - August, 2018

Data Science Intern

Developed and deployed an anomaly detection system for user login data to identify system failures in Azure.

Western Digital

May - August, 2016

Data Analyst Intern

Designed and deployed a data pipeline and analytics platform for hard drive factory data.

LaserFiche

Data Analyst Intern

May - August, 2015

Developed predictive models to estimate customer lifetime value and analyzed key factors in customer retention.

Software Development Intern

May - August, 2014

Worked in C# with .NET to interface SQL databases with web applications.