

## EDUCATION

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**Georgia Institute of Technology**

*Aug 2020 - Present*

Ph.D. in Machine Learning

Advised by Dhruv Batra and Zsolt Kira

**University of Southern California**

*Aug 2016 - May 2020*

B.S. in Computer Science, Minor in Mathematics

Trustee Full Tuition Scholarship

## PUBLICATIONS

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- [7] “Galactic: Scaling End-to-End Reinforcement Learning for Rearrangement at 100k Steps-Per-Second”  
V. Berges\*, **A. Szot\***, D. Chaplot, A. Gokaslan, R. Mottaghi, D. Batra, E. Undersander (\* - equal contribution)  
*Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023
- [6] “BC-IRL: Learning Generalizable Reward Functions from Demonstrations”  
**A. Szot**, A. Zhang, D. Batra, Z. Kira, F. Meier  
*International Conference on Learning Representations (ICLR)*, 2023 [pdf]  
**Spotlight, top 8% of 4900 submissions**
- [5] “Housekeep: Tidying Virtual Households using Commonsense Reasoning”  
Y. Kant, A. Ramachandran, S. Yenamandra, I. Gilitschenski, D. Batra, **A. Szot\***, H. Agrawal\* (\* - equal advising)  
*European Conference on Computer Vision (ECCV)*, 2022 [pdf]
- [4] “Habitat 2.0: Training Home Assistants to Rearrange their Habitat”  
**A. Szot**, A. Clegg, E. Undersander, E. Wijmans, Y. Zhao, J. Turner, N. Maestre, M. Mukadam, D. Chaplot, O. Maksymets, A. Gokaslan, V. Vondrus, S. Dharur, F. Meier, W. Galuba, A. Chang, Z. Kira, V. Koltun, J. Malik, M. Savva, D. Batra  
*Neural Information Processing Systems (NeurIPS)*, 2021 [pdf]  
**Spotlight, top 3% of 9122 submissions**
- [3] “Generalizable Imitation Learning from Observation via Inferring Goal Proximity”  
Y. Lee\*, **A. Szot\***, , S. Sun and J. J. Lim (\* - equal contribution)  
*Neural Information Processing Systems (NeurIPS)*, 2021 [pdf]
- [2] “Generalization to New Actions in Reinforcement Learning”  
A. Jain\*, **A. Szot\*** and J. J. Lim (\* - equal contribution)  
*International Conference on Machine Learning (ICML)*, 2020 [pdf]

## PREPRINTS

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- [1] “Retrospectives on the Embodied AI Workshop ”  
M. Deitke, D. Batra, ... **A. Szot**, ... , L. Weihs, J. Wu  
*arXiv preprint*, 2022 [pdf]

## AWARDS

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- **GT Institute-Wide Online Teaching Assistant of the Year:** For grad deep learning course. *Fall 2021*
- **NSF GRFP Honorable Mention** *2021*
- **USC Viterbi Fellowship:** Research funding given to the top 20 engineering students per class. *2016-2020*
- **USC Trustee Scholarship:** Full tuition scholarship. *2016-2020*
- **USC Provost Fellowship:** Merit based fellowship for summer research funding. *2019*

## EXPERIENCE

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**Meta AI Research** *Research Scientist Intern*

*May 2022 - December 2022*

*Advisor: Dr. Akshara Rai and Dr. Ruta Desai*

Working on multi-agent reinforcement learning (work in progress).

**Facebook AI Research** *Research Scientist Intern*

*May 2021 - December 2021*

*Advisor: Dr. Franziska Meier*

Researched generalization in inverse reinforcement learning (published at ICLR 2023).

**CLVR Lab, University of Southern California**

*August 2018 – June 2020*

*Advisor: Prof. Joseph J. Lim*

Researched imitation from observation (published at NeurIPS 2021), generalization to new actions in reinforcement learning (published at ICML 2020), and benchmarks for tool usage and physical reasoning in RL (web).

**Airbnb** *Software Engineering Intern*

*May 2018 – August 2018*

Deployed a model to production that predicted and took automated action against account takeover fraud using Scikit-learn, XGBoost, Hive and Presto, resulting in a 50% reduction in account takeover fraud.

**Media Communications Lab, University of Southern California**

*October 2016 – December 2017*

*Advisor: Prof. C.C. Jay Kuo*

Researched weakly supervised CNNs using clustering approaches to pre-train.

**eBay** *Software Engineering Intern*

*May 2017 – August 2017*

Delivered a data analytics platform using Scala, Spark, Hadoop and Druid to process petabytes of eBay metrics.

## SERVICE AND TEACHING

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### Workshop / Challenge Organization

- Lead organizer of NeurIPS 2022 “Habitat Rearrangement Challenge” [link] *2022*
- Organizer at Embodied AI Workshop at CVPR 2022 *2022*

### Teaching

- Graduate Deep Learning Teaching Assistant (CS 7643, won outstanding TA award) *Fall 2021*

### Reviewing

- ICCV 2021, IROS 2021, ICLR 2022-, CVPR 2022, NeurIPS 2022-

### Mentoring

- Haytham Huang (GT Undergraduate) *Spring 2022-Present*
- Abhinav Harish (GT Masters) *Spring 2022-Present*
- Sriram Yenamandra (GT Masters): *Fall 2021-Present*  
Mentored on “Housekeep: Tidying Virtual Households using Commonsense Reasoning” (ECCV 2022).
- Arun Ramachandran (GT Masters) *Fall 2021-Present*  
Mentored on “Housekeep: Tidying Virtual Households using Commonsense Reasoning” (ECCV 2022).

## SELECTED PRESS COVERAGE

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- “How Facebook’s AI is training home robots to tackle the chores you hate”, by Katie Collins, *CNET*, June 30, 2021 [link]
- “Facebook and Matterport collaborate on realistic virtual training environments for AI”, by Devin Coldewey, *Tech Crunch*, June 30, 2021 [link]
- “Facebook updates Habitat environment to train ‘embodied AI’”, by Kyle Wiggers, *VentureBeat*, June 30, 2021 [link]

## PROJECTS

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- **CAIS++**: Co-founded a club, leading social impact AI projects. Received 200 applications per semester. Created teaching curriculum covering a semester of deep learning content. [web]
- **Voice Conversion**: Unsupervised voice translation between speakers. Received best project award out of 250 graduate students. Implemented CycleGAN and VQ-VAE for audio. [code] [write-up]
- **RL Algorithms**: Implemented and open sourced reinforcement and imitation learning methods. [code]