

Jacob Krantz

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EDUCATION

2019–*Current* | Ph.D. in Computer Science, Oregon State University
GPA: 3.93
Advisor: [Stefan Lee](#)

MAY 2019 | B.S. in Computer Science, Gonzaga University
Magna Cum Laude. Minor in Physics.

PUBLICATIONS

Peer-Reviewed Conference Papers

- Sim-2-Sim Transfer for Vision-and-Language Navigation in Continuous Environments.
J. Krantz, S. Lee.
In *European Conference on Computer Vision (ECCV)*, 2022.
[arXiv:2204.09667](#) [Oral: 158/5803 = top 2.7%]
- Waypoint Models for Instruction-guided Navigation in Continuous Environments.
J. Krantz, A. Gokaslan, D. Batra, S. Lee, O. Maksymets.
In *International Conference on Computer Vision (ICCV)*, 2021
[arXiv:2110.02207](#) [Oral: 210/6236 = top 3.3%]
- Where Are You? Localization from Embodied Dialog.
M. Hahn, **J. Krantz**, D. Batra, D. Parikh, M. Rehg, S. Lee, P. Anderson.
In *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2020
[arXiv:2011.08277](#) [25%]
- Beyond the Nav-Graph: Vision-and-Language Navigation in Continuous Environments.
J. Krantz, E. Wijmans, A. Majumdar, D. Batra, S. Lee.
In: *European Conference on Computer Vision (ECCV)*, 2020.
[arXiv:2004.02857](#) [27%]
- Language-Agnostic Syllabification with Neural Sequence Labeling.
J. Krantz, M. Dulin, P. De Palma.
In *IEEE International Conference on Machine Learning and Applications (ICMLA)*, 2019
[arXiv:1909.13362](#) [Oral: 14%]
- Abstractive Summarization Using Attentive Neural Techniques.
J. Krantz, J. Kalita.
In *International Conference on Natural Language Processing (ICON)*, 2018
[arXiv:1810.08838](#) [Oral: 9%]
- Syllabification by Phone Categorization.
J. Krantz, M. Dulin, P. De Palma, M. VanDam.
In *ACM Genetic and Evolutionary Computation Conference Companion (GECCO)*, 2018
[arXiv:1807.05518](#)

Technical Reports

- Instance-Specific Image Goal Navigation: Training Embodied Agents to Find Object Instances.
J. Krantz, S. Lee, J. Malik, D. Batra, D.S. Chaplot.
arXiv Preprint, 2022.
[arXiv:2211.15876](#)
- Retrospectives on the Embodied AI Workshop.
M. Deitke, D. Batra, Y. Bisk, T. Campari, A. Chang, D. Chaplot, C. Chen, C. D’Arpino, K. Ehsani, A. Farhadi, F. Li, A. Francis, C. Gan, K. Grauman, D. Hall, W. Han, U. Jain, A. Kembhavi, **J. Krantz**, S. Lee, C. Li, S. Majumder, O. Maksymets, R. Martín-Martín, R. Mottaghi, S. Raychaudhuri, M. Roberts, S. Savarese, M. Savva, M. Shridhar, N. Sünderhauf, A. Szot, B. Talbot, J. Tenenbaum, J. Thomason, A. Toshev, J. Truong, L. Weihs, J. Wu
arXiv Preprint, 2022.
[arXiv:2210.06849](#)

Under Review

- Iterative Vision-and-Language Navigation.
J. Krantz*, S. Banerjee*, W. Zhu, J. Corso, P. Anderson, S. Lee, J. Thomason
arXiv Preprint, 2022.
[arXiv:2210.03087](#)

INTERNSHIPS

JUN–DEC 2022	Research Intern , Meta AI FAIR Labs Advised by Devendra Singh Chaplot
AUG–FEB 2021	Research Intern , Meta AI (then Facebook) FAIR Labs Advised by Oleksandr Maksymets
MAY–AUG 2018	NSF REU Fellow , University of Colorado, Colorado Springs Advised by Jugal Kalita
MAY–AUG 2017	Data Analytics Intern , Faithlife Corporation

PROFESSIONAL

Workshop Organization

- [RxR-Habitat Challenge](#) at the [Embodied AI Workshop](#), CVPR. (2021 & 2022)
- Visually Grounded Interaction and Language Workshop ([ViGIL](#)), NAACL. (2021)

Service

- Member, Design Advisory Board, [CEDE](#), Gonzaga University. (2021 & 2022)
- Mentor, Artificial Intelligence Application Support Program ([AIASP](#)) at Oregon State.
Providing guidance to historically underrepresented groups interested in graduate programs. (2022)

Reviewing

- International Conference on Robotics and Automation (ICRA). (2022 & 2023)
- Association for Computational Linguistics Rolling Review (ARR). (2022)
- Neural Information Processing Systems (NeurIPS). (2021)
- Workshop on Spatial Language Understanding and Grounded Communication for Robotics ([SpLU-RoboNLP](#)) at ACL-IJCNLP. (2021)

OPEN SOURCE

- [AI Habitat](#): contributed Vision-and-Language Navigation (2020) and Instance ImageGoal Navigation (2022) to Habitat Lab. The Habitat platform is built and maintained by FAIR at Meta.
- [VLN-CE](#): Developer and maintainer of the codebase for the Vision-and-Language Navigation in Continuous Environments task, challenge, and baselines.

HONORS AND AWARDS

- Best Presentation Award: Spokane Intercollegiate Research Conference (SIRC) 2017. [[1/75=1.3%](#)]
- AI Tournament Champion (Othello), Gonzaga University, May 2017

ABSTRACTS AND PRESENTATIONS

- **J. Krantz**, E. Wijmans, A. Majumdar, D. Batra, S. Lee. Beyond the Nav-Graph: Vision-and-Language Navigation in Continuous Environments – Extended Abstract. Language in Reinforcement Learning (LaReL) Workshop at ICML. (2020)
- **J. Krantz**, M. Dulin. Probabilistic Syllabification of English Words. Presentation at the Spokane Intercollegiate Research Conference (SIRC). (2017)

TEACHING

- Teaching Assistant: CS 321 Theory of Computation. Oregon State University, Fall 2019
- Teaching Assistant: CS 427 Artificial Intelligence, Gonzaga University, Spring 2018 & Spring 2019
- Teaching Assistant: CS 475 Natural Language Processing. Gonzaga University, Fall 2018