

Klemen Kotar

Predoctoral Young Investigator at [Allen Institute for AI](#)
Seattle, WA
klemenkotar.github.io
klemenk@allenai.org

PRINCIPAL INTERESTS

Endowing embodied agents with the ability to reason about the world around them, through physical scene understanding and continually improve their model of the world through lifelong learning.

ACADEMIC BACKGROUND

B.S. Computer Science 2017-2019
[University of Washington](#), Seattle, WA

- Computer Science Major, 3.8 GPA
- Part of Computational Neuroscience Training Program

EMPLOYMENT HISTORY

Predoctoral Young Investigator 2020 - Present
[Allen Institute for AI](#), [PRIOR](#), Seattle, WA

- Conducting research and publishing papers in Computer Vision, Reinforcement Learning and Embodied AI
- Mentored by Roozbeh Mottaghi

Undergraduate Researcher 2018 - 2019
[Robotics and State Estimation Laboratory](#), [University of Washington](#), Seattle, WA

- Worked on Interactive Computer Vision and Reinforcement Learning
- Mentored by Aaron Walsman

Software Engineering Intern 2018
[Tesla](#), Palo Alto, CA

- Developed backend software for validating ownership, location and other metadata of powerwall battery units across the country.
- Wrote data quality console in react.js to monitor metadata of battery units across the world.

Controls Team Lead 2017 - 2016
Washington Hyperloop, [University of Washington](#), Seattle, WA

- Proposed major redesign of the racing pod, switching from an electric powertrain to a cold gas thruster, based on first principles.
- Led the development of a hardware and software stack ranging from electronics and C code on the vehicle, to a web-based GUI for controlling it.
- Wrote software for simulating the temperature and pressure loads of our cold gas thruster system.

PUBLICATIONS

3. Kotar, K., Mottaghi, R. Interactron: Embodied Adaptive Object Detection under review *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.
2. Kotar, K., Ilharco, G., Schmidt, L., Ehsani, K., Mottaghi, R. Contrasting Contrastive Self-Supervised Representation Learning Pipelines. *In Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021

1. Weihs, L., Salvador, J., Kotar, K., Jain, U., Zeng, K. H., Mottaghi, R., Kembhavi, A. Allenact: A Framework for Embodied AI Research. *arXiv preprint arXiv:2008.12760*, 2020.

WRITING

1. Kotar, Klemen. “Contrasting Contrastive Learning Approaches.” *Medium, Towards Data Science*, 19 May 2021, <https://towardsdatascience.com/contrasting-contrastive-learning-approaches-c3eab8a4728c>.

SPECIAL ACHIEVEMENTS

- *University of Washington* “Annual Dean’s List“ (2017 - 2019).
- *SpaceX*, “Fist Place Among all U.S. teams Award“, Hyperloop competition in Hawthorne, CA (2018).
- *SpaceX*, “Innovation Award“, Hyperloop competition in Hawthorne, CA (2018).

SERVICE

Volunteer

[American Slovenian Education Foundation](#), San Francisco, CA

- Helped organize events.
- Gave visiting scholars tours of places around the Bay Area.
- Worked on the web and social media presence of foundation.

Advisor

Washington Hyperloop, [University of Washington](#), Seattle, WA

- Helped recruit for the team after stepping down as controls team lead to focus on research.
- Attended major design reviews and helped guide overall design of controls systems.