Joey Hejna

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Education

Stanford University *September 2021 - Present*
PhD in Computer Science, AI **GPA: 4.3/4.0**

- *Funding Awards:* I am graciously supported by a DoD NDSEG Fellowship, roughly 5% selection rate.
- *Research Interest:* My research focuses on learning for intelligent decision-making systems.

University of California, Berkeley *August 2017 – May 2021*
B.S. Electrical Engineering and Computer Science **GPA: 4.0/4.0**

- *Academic Awards:* Highest Honors, top 3% of graduates; Regents and Chancellors Scholar, top <2% incoming
- *Research Awards:* 2021 CRA Undergrad Research Award Honorable mention

Publications

Show, Don't Tell: Aligning Language Models with Demonstrated Feedback *ArXiv Preprint*
O Shaikh*, M Lam*, Joey Hejna*, S Yao, M Bernstein, D Yang https://arxiv.org/abs/2406.00888

Scaling Laws for Reward Model Overoptimization in Direct Alignment Algorithms *ArXiv Preprint*
R Rafailov*, Y Chittepu*, R Park*, H Sikchi*, J Hejna, WB Knox, C Finn, S Niekum https://arxiv.org/abs/2406.02900

From r to Q*: Your Language Model is Secretly a Q-Function *ArXiv Preprint*
Rafael Rafailov*, Joey Hejna*, Ryan Park, Chelsea Finn

DROID: A Large Scale In-the-Wild Robot Manipulation Dataset *Published at RSS 2024*
Aleksander Khazatsky, Karl Pertsch, … Joey Hejna, et al. https://droid-dataset.github.io/

Octo: An Open Source Generalist Robot Policy *Published at RSS 2024*
Octo team, … Joey Hejna, et al. https://octo-models.github.io/

Contrastive Preference Learning: Learning from Human Feedback without RL *ArXiv Preprint*
Joey Hejna, R Rafailov, H Sikchi, C Finn, S Niekum, WB Knox, D Sadigh https://arxiv.org/abs/2310.13639

Inverse Preference Learning: Preference-based RL Without a Reward Function *Published at NeurIPS 2023*
Joey Hejna, Dorsa Sadigh. https://arxiv.org/abs/2305.15363

Distance Weighted Supervised Learning *Published at ICML 2023*
Joey Hejna, Jensen Gao, Dorsa Sadigh. https://arxiv.org/abs/2304.13774

Extreme Q-Learning: MaxEnt RL without Entropy *Published at ICLR 2023 (Oral)*
Div Garg*, Joey Hejna*, Mattheiu Gesit, Stefano Ermon. https://openreview.net/pdf?id=SJ0Lde3tRL

Few-Shot Preference Learning for Human-in-the-Loop RL *Published at CoRL 2022*
Joey Hejna, Dorsa Sadigh. https://openreview.net/pdf?id=IKC5TfXLuW0

Improving Long-Horizon Imitation Through Instruction Prediction *Published at AAAI 2023*
Joey Hejna, Pieter Abbeel, Lerrel Pinto. https://openreview.net/pdf?id=1Z3h4rCLvo-

Task-Agnostic Morphology Evolution *Published at ICLR 2021*
Donald Joseph Hejna III, Pieter Abbeel, Lerrel Pinto. https://openreview.net/pdf?id=CGQ6ENUMX6

Hierarchically Decoupled Imitation for Morphological Transfer *Published at ICML 2020*
Donald Joseph Hejna III, Pieter Abbeel, Lerrel Pinto. https://arxiv.org/abs/2003.01709

Professional Experience

Google DeepMind, Student Researcher *June 2024 – Sept 2024*

- Student researcher on the deepmind robotics team.

Teaching Assistant *August 2019 – December 2023*

- CS 221: Intro to AI (Fa23, Head TA). CS 189: Machine Learning (Sp20, Sp21). EECS 127: Optimization

Citadel Global Quantitative Strategies, Intern *June 2019 – August 2019*

- C++ development for job monitoring and testing, explored reduction in RAM usage for distributed tree training.

Intel AI Products Group, Intern *May 2018 –August 2018*

- Produced demo-products for Intel OpenVino Model Optimizer. Computer vision project featured on intel's blog.