Jubayer Ibn Hamid

jubayer@stanford.edu https://jubayer-ibn-hamid.github.io/

EDUCATION

Stanford University

Stanford, CA

Ph.D., Computer Science

Sept, 2025-Present

M.S., Computer Science

April, 2024 - June, 2025

B.S., Mathematical Physics

Sept, 2019 - March, 2024

EXPERIENCE

Stanford Artificial Intelligence Laboratory

Stanford, CA

Researcher (IRIS Lab)

Jan, 2023-Present

- o Supervisor: Prof. Chelsea Finn (Jan, 2023-Present), Prof. Dorsa Sadigh (March, 2025-Present)
- Reinforcement learning, generative modeling, representation learning and robotics.

Stanford Applied Physics

Stanford, CA

Researcher (Stanford LIGO Group)

June 2022-Sept. 2022

- o Supervisor: Prof. Riccardo Bassiri
- Designing reduced thermal noise coatings for LIGO using material character characterizations for amorphous thin films

Kavli Institute for Particle Astrophysics and Cosmology

Stanford, CA

Researcher

o Supervisor: Prof. Chao-Lin Kuo

June 2021-Sept. 2021

o Designing novel conic-shell cavities for axion detection.

Publications

- [4] **Jubayer Ibn Hamid**, Anikait Singh, Yoonho Lee, Dorsa Sadigh, Chelsea Finn. Learning Divergent Exploration via Reinforcement Learning. *In preparation for ICLR 2025*.
- [4] Sheryl Hsu, Anikait Singh, **Jubayer Ibn Hamid**, Chelsea Finn, Archit Sharma. Taming the Shifting Sands: Importance-Weighting Addresses Stale Preferences in Direct Preference Optimization. *In preparation for NeurIPS* 2025.
- [3] Yuejiang Liu*, **Jubayer Ibn Hamid***, Annie Xie, Yoonho Lee, Max Du, Chelsea Finn. Bidirectional Decoding: Improving Action Chunking via Closed-Loop Resampling. *International Conference on Learning Representations* (ICLR) 2025. https://arxiv.org/abs/2408.17355.
- [2] Kyle Hsu*, **Jubayer Ibn Hamid***, Kaylee Burns, Chelsea Finn, Jiajun Wu. Tripod: Three Complementary Inductive Biases for Disentangled Representation Learning. *International Conference on Machine Learning (ICML)* 2024. https://arxiv.org/abs/2404.10282
- [1] Kaylee Burns, Zach Witzel, **Jubayer Ibn Hamid**, Tianhe Yu, Chelsea Finn, Karol Hausman. What Makes Pre-trained Visual Representations Successful for Robust Manipulation. *Conference on Robot Learning (CoRL)* 2024. https://arxiv.org/pdf/2312.12444.pdf

^{*} denotes co-first authorship.

Relevant Coursework

Computer Science: Reinforcement Learning, Natural Language Processing with Deep Learning, Deep Generative Models, Machine Learning, Deep Learning, Artificial Intelligence.

Mathematics: Algebraic Geometry, Abstract Algebra (group theory, ring theory, representation theory, module theory), Differential Topology, Real Analysis, Complex Analysis, Differential Geometry, Convex Optimization, Modern Statistical Learning.

Physics: Quantum Field Theory, Quantum Mechanics, Lagrangian/Hamiltonian Mechanics, Statistical Mechanics, Electrodynamics.

Projects

ELI5B: Explain it to me like I am 0.5b. We used Llama 4 - Maverick to generate instructions that can help smaller Llama 3 models (1b, 3b and 8b) solve olympiad-level mathematics questions. We investigated how helpful these instructions are when they are generated with no prior versus when Maverick knows what model it is speaking to. We saw that in the latter case, the instructions were tailored in a way that consistently helped the smaller models solve more questions, achieving success rate ove 6 percent higher.

TEACHING

Stanford CS 224R: Deep Reinforcement Learning	Stanford, CA
Head Course Assistant	$Spring,\ 2025$
Stanford CS 229: Machine Learning	Stanford, CA
Course Assistant	Winter, 2025

Talks

2025:

• Bidirectional Decoding: Improving Action Chunking via Closed-Loop Resampling. OpenAI Robotics.

EXTRACURRICULARS

Stanford Artificial Intelligence Club

Stanford, CA

Board Member (Reading Groups)

Feb. 2024-Present

• Leading reading groups on machine learning and robotics.

Stanford Debating Society

Stanford, CA

Debater

Sept, 2019-Present

 Competed for SDS. Achievements include finalist at World Universities Debating Championship 2024, semi-finalist at Yale IV 2022, 2023.