RYAN CHENG

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EDUCATION

University of California, Berkeley *August 2025 - May 2026*
Master of Science, Computer Science

University of California, Berkeley *August 2021 - May 2025*
Bachelor of Arts, Physics | Bachelor of Arts, Computer Science *GPA: 3.972*

PUBLICATIONS AND PREPRINTS

Consistently Simulating Human Personas with Multi-Turn Reinforcement Learning.
*Marwa Abdulhai, **Ryan Cheng**, Donovan Clay, Tim Althoff, Sergey Levine, Natasha Jaques.*
Conference on Neural Information Processing Systems (NeurIPS), 2025

Deception in Dialogue: Evaluating and Mitigating Deceptive Behavior in Large Language Models.
*Marwa Abdulhai, **Ryan Cheng**, Aryansh Shrivastava, Natasha Jaques, Yarin Gal, Sergey Levine.*
Preprint

RESEARCH EXPERIENCE

Berkeley Artificial Intelligence Research, Robotics and AI Learning Lab *April 2024 - Present*
Student Researcher
- Investigating various techniques for improving task-oriented free-form dialogue from Large Language Models through multi-turn Reinforcement Learning.
- Designed multiplayer games with several Nash equilibria to evaluate the negotiation strategies and ethics of LLMs.
- Used multi-turn Reinforcement Learning to train models to reduce inconsistency by over 55% and reduce deception by over 77.6%.

International Computer Science Institute, UC Berkeley Wagner Research Group *September 2023 - May 2024*
Student Researcher
- Designed a novel stateful defense against adversarial attacks to protect query-based machine learning models.
- Implemented cutting-edge attacks to test this defense using Pytorch and the Adversarial Robustness Toolbox.

UC Berkeley Condensed Matter Physics, Crommie & Zettl Research Groups *May 2023 - Present*
Student Researcher
- Investigated the intercalation of lithium into twisted transition metal dichalcogenides using Raman Spectroscopy and Atomic Force Microscopy, with applications in energy storage and battery technology.
- Grew metallic crystals for the Zettl group to study materials with novel electronic properties.
- Designed and assembled an automated vacuum load-lock for the Crommie group using CAD software to transport air-sensitive materials into an ultra-high vacuum environment for study under scanning tunneling microscopes.

SKILLS

Programming: Advanced Python, Advanced Java, Intermediate C++, Intermediate C, Intermediate Verilog
Software & Tools: PyTorch, SciPy, SkyRL, pandas, OpenMP, OpenMPI, SIMD, Git, Autodesk Inventor

HONORS/AWARDS

Phi Beta Kappa, Member *February 2025*
EECS Honors Student *August 2023*
Upsilon Pi Epsilon (CS honor society), Member *September 2022*
National Merit Scholarship *July 2021*