

Mariel Pettee

Physicist, AI researcher, and artist
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Education

2021	YALE UNIVERSITY, New Haven, CT	PhD in Physics
2015	UNIVERSITY OF CAMBRIDGE, Trinity College, Cambridge, UK Lt. Charles H. Fiske III Harvard-Cambridge Scholar Commendable Performance	MASt in Physics
2014	HARVARD UNIVERSITY, Cambridge, MA Cum Laude, High Honors in Field Secondary in Dramatic Arts	AB in Physics & Mathematics

Research Experience

2022 - Now	GUEST RESEARCHER • <i>Flatiron Institute & Polymathic AI</i> As a founding member of the Polymathic AI collaboration, I am working to build the first foundation models for science. My focus areas include numerical embeddings in language models, understanding interdisciplinary domain transfer, and interpretability. Supervisor: Prof. Shirley Ho
2021 - Now	CHAMBERLAIN POSTDOCTORAL FELLOW • <i>Lawrence Berkeley National Lab</i> My postdoctoral work is grounded in radical applications of AI for fundamental physics. Highlights include the first unbinned measurement at the LHC, finding stellar streams in the Milky Way with weakly-supervised anomaly detection, improving pion reconstruction with GNNs, and exploring best practices for learning likelihood ratios. Supervisor: Dr. Benjamin Nachman
2020	AI INTERN • <i>Intel AI Lab</i> As a summer intern with the AI Lab at Intel, I developed a recurrent VAE architecture to learn latent graph representations of the human body in motion. Supervisor: Dr. Hanlin Tang
2016 - 2021	GRADUATE RESEARCHER • <i>Yale University & the ATLAS Experiment at CERN</i> The highlight of my PhD thesis was finding the first evidence of a Higgs boson produced in association with a leptonically-decaying W or Z boson and decaying into a pair of tau leptons. I also implemented RNN-based tau triggers in ATLAS and performed trigger and data acquisition optimization studies at the Mu2e Experiment at Fermilab. Supervisor: Prof. Sarah Demers
2014 - 2015	GRADUATE RESEARCHER • <i>University of Cambridge</i> While pursuing my Master's degree at the University of Cambridge, I constructed and tested nanoscale battery prototypes made of DNA-functionalized gold nanocolloids. Supervisor: Prof. Erika Eiser

Selected Publications

Full list of papers with the ATLAS Collaboration. (**Note:** ▷ indicates alphabetical author ordering.)

- 2024 ATLAS Collaboration (**Contact Editor**). [A Simultaneous Unbinned Differential Cross Section Measurement of 24 Z+jets Kinematic Observables with the ATLAS Detector](#). *Phys. Rev. L.* [CERN-EP-2024-132] [arXiv:2405.20041] [hep-ex].
- ATLAS Collaboration (**Contact Editor**). [Evidence of the \$VH\$, \$H \rightarrow \tau\tau\$ process with the ATLAS detector in Run 2](#). *Phys. Rev. B.* [CERN-EP-2023-272] [arXiv:2312.02394] [hep-ex].
- 2023 S. Golkar & **M. Pettee**, M. Eickenberg, A. Bietti, M. Cranmer, G. Krawezik, F. Lanusse, M. McCabe, R. Ohana, L. Parker, B. Régalo-Saint Blancard, T. Tesileanu, K. Cho, S. Ho. [xVal: A Continuous Number Encoding for Large Language Models](#). *Accepted contribution at NeurIPS AI for Science Workshop*. *Submitted*. [arXiv:2310.02989] [stat.ML].
- M. Pettee**, S. Thanvantri, B. Nachman, D. Shih, M. R. Buckley, J. H. Collins. [Weakly-Supervised Anomaly Detection in the Milky Way](#). *MNRAS*. [arXiv:2305.03761] [astro-ph.GA].
- S. Rizvi, **M. Pettee**, B. Nachman. [Learning Likelihood Ratios with Neural Network Classifiers](#). *JHEP*. [arXiv:2305.10500] [hep-ph].
- V. Mikuni, **M. Pettee**, B. Nachman. [Fast Point Cloud Generation with Diffusion Models in High Energy Physics](#). *Phys. Rev. D.* [arXiv:2304.01266] [hep-ph].
- ▷ A. Huang, X. Ju, J. Lyons, D. Murnane, **M. Pettee**, L. Reed. [Heterogeneous Graph Neural Network for Identifying Hadronically Decayed Tau Leptons at the High Luminosity LHC](#). *JINST*. [arXiv:2301.00501] [physics.ins-det].
- 2022 ▷ A. Bogatskiy, S. Ganguly, T. Kipf, R. Kondor, D. W. Miller, D. Murnane, J. T. Offermann, **M. Pettee (co-editor)**, P. Shanahan, C. Shimmin, and S. Thais. [Symmetry Group Equivariant Architectures for Physics](#). *Snowmass 2021 White Paper*. [arXiv:2203.06153] [cs.LG].
- ATLAS Collaboration (**co-editor**). [Point Cloud Deep Learning Methods for Pion Reconstruction in the ATLAS Experiment](#). [ATL-PHYS-PUB-2022-040].
- M. Papillon, **M. Pettee**, N. Miolane. [PirouNet: Creating Dance through Artist-Centric Deep Learning](#). *EAI ArtsIT 2022 (Best Paper Award)*. [arXiv:2207.12126] [cs.LG].
- M. Papillon, **M. Pettee**, N. Miolane. [Intentional Choreography with Semi-Supervised Recurrent VAEs](#). *NeurIPS 2022 Workshop on ML for Creativity and Design*. [arXiv:2209.10010] [cs.LG].
- ▷ G. Kasieczka, R. Mastandrea, V. Mikuni, B. Nachman, **M. Pettee**, D. Shih. [Anomaly Detection Under Coordinate Transformations](#). [arXiv:2209.06225] [hep-ph].
- 2021 **M. Pettee**. [Interdisciplinary Machine Learning for Particle Physics](#). *PhD Thesis, Yale University*.
- 2020 **M. Pettee**, S. Miret, S. Majumdar, and M. Nassar. [Choreo-Graph: Learning Latent Graph Representations of the Dancing Body](#). *NeurIPS 2020 Workshop on ML for Creativity and Design*.
- 2019 **M. Pettee**, C. Shimmin, D. Duhaime, and I. Vidrin. [Beyond Imitation: Generative and Variational Choreography via Machine Learning](#). *Proceedings of the 10th International Conference on Computational Creativity*. [arXiv:1907.05297] [cs.LG].
- The ATLAS Collaboration (**co-editor**). [Expected Performance of the ATLAS Detector at the High-Luminosity LHC](#). [ATL-PHYS-PUB-2019-005].

Invited Talks

INVISIBLE CITIES: TOWARD A MULTI-MODAL ERA OF FUNDAMENTAL PHYSICS RESEARCH

2024	Carleton University, <i>Canada</i>	Physics Department Colloquium
	LBNL, <i>Berkeley, CA</i>	Berkeley Lab AI for Science Summit
	CERN, <i>Geneva, Switzerland</i>	Foundation Models for Science Mini-Workshop
	Argonne National Laboratory	HEP Theory Seminar
	Smith College, <i>Northampton, MA</i>	Physics Department Colloquium

A SIMULTANEOUS UNBINNED DIFFERENTIAL CROSS-SECTION MEASUREMENT OF 24 Z +JETS OBSERVABLES

2024	<i>Ljubljana, Slovenia</i>	ATLAS Standard Model Workshop
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TOWARDS FOUNDATION MODELS FOR FUNDAMENTAL PHYSICS

2024	NASA, <i>Huntsville, AL</i>	Science Mission Directorate AI Workshop
	DESY, <i>Hamburg, Germany</i>	1st Large Language Models in Physics Symposium
	LBNL, <i>Berkeley, CA</i>	Physics Division Research Progress Meeting
	U. of Tokyo, <i>Tokyo, Japan</i>	AI-Driven Discovery in Physics & Astrophysics
	KEK, <i>Tsukuba, Japan</i>	ML for HEP Workshop

WHAT DO LANGUAGE MODELS HAVE TO SAY ABOUT FUNDAMENTAL PHYSICS?

2024	MIT, <i>Cambridge, MA</i>	IAIFI Summer Workshop
	UC Berkeley, <i>Berkeley, CA</i>	Bakar Inst. of Digital Materials for the Planet Seminar
	SLAC, <i>Menlo Park, CA</i>	SLAC AI Seminar
2023	IBM, <i>Zurich, Switzerland</i>	IBM Research Seminar

DANCING WITH MYSELF: AI AND CHOREOGRAPHY

2024	School of the Art Inst. of Chicago	Research Seminar
	Pratt Institute, <i>Brooklyn, NY</i>	AI in the Humanities Symposium
	Foothill College, <i>Los Altos Hills, CA</i>	Creativity in the Age of AI Symposium
2023	Mills College, <i>Oakland, CA</i>	DanceHack Workshop
2022	U. of Alabama, <i>Tuscaloosa, AL</i>	Theatre & Dance Department Colloquium
	Amherst College, <i>Amherst, MA</i>	AI in the Liberal Arts Seminar
	Ballet Des Moines, <i>Des Moines, IA</i>	Panel Discussion: Creativity, Science, and Ethics
	Kinetech Arts, <i>San Francisco, CA</i>	Y-Exchange Featured Artist
2020	Kinetech Arts, <i>San Francisco, CA</i>	Kinetech Open Lab Talk
	Brown U., <i>Providence, RI</i>	Conference for Research on Choreographic Interfaces

INTERDISCIPLINARY AI FOR FUNDAMENTAL PHYSICS

2023	Ascona, <i>Switzerland</i>	Hammers & Nails (Swiss Edition)
	Flatiron CCA, <i>New York, NY</i>	KITP Workshop on Data-Driven Galaxy Evolution
2022	Univ. of Alabama, <i>Tuscaloosa, AL</i>	Physics Department Colloquium
	SLAC, <i>Menlo Park, CA</i>	SLAC AI Seminar
	UC Irvine, <i>Irvine, CA</i>	Physics & Astronomy Machine Learning Seminar Series
	Imperial College, <i>London, UK</i>	Data Learning Working Group Seminar
	Amherst College, <i>Amherst, MA</i>	Artificial Intelligence in the Liberal Arts Seminar Series
	Cornell U., <i>Ithaca, NY</i>	Laboratory for Elementary Particle Physics Journal Club
2021	UC Berkeley, <i>Berkeley, CA</i>	Berkeley Institute for Data Science ML + Science Forum

Seattle U., <i>Seattle, WA</i>	Physics Department Colloquium
U. of Tennessee, <i>Knoxville, TN</i>	HEP Seminar
Flatiron Institute, <i>New York, NY</i>	Center for Computational Astrophysics ML Forum

WEAKLY-SUPERVISED ANOMALY DETECTION IN THE MILKY WAY

2023	UChicago, <i>Chicago, IL</i>	Data Science Institute & James Franck Institute Seminar
	Rutgers U., <i>New Brunswick, NJ</i>	High-Energy Physics Theory Seminar

EQUIVARIANCE MEETS INVARIANCE: PHYSICS-INFORMED MACHINE LEARNING

2023	<i>Minneapolis, MN</i>	American Physical Society (APS) April Meeting
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Contributed Talks

A SIMULTANEOUS UNBINNED DIFFERENTIAL CROSS-SECTION MEASUREMENT OF 24 Z +JETS OBSERVABLES

2024	Sorbonne Université, <i>Paris, France</i>	France-Berkeley PHYSTAT Conference on Unfolding
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USING CLASSIFIERS FOR UNBINNED UNFOLDING

2024	Sorbonne Université, <i>Paris, France</i>	France-Berkeley PHYSTAT Conference on Unfolding
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WEAKLY-SUPERVISED ANOMALY DETECTION IN THE MILKY WAY

2023	Flatiron Institute, <i>New York, NY</i>	Flatiron-Wide Machine Learning Meeting
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POINT CLOUD METHODS FOR PION RECONSTRUCTION IN THE ATLAS DETECTOR

2022	CERN, <i>Geneva, Switzerland</i>	Inter-experiment Machine Learning Workshop
	<i>New York, NY</i>	APS April Meeting

DANCING WITH MYSELF: AI AND CHOREOGRAPHY

2021	<i>St. Louis, MO</i>	Strange Loop Conference
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CHOREO-GRAPH: LEARNING LATENT GRAPH REPRESENTATIONS OF THE DANCING BODY

2020	NeurIPS, <i>Vancouver, Canada</i>	Workshop on ML for Creativity and Design
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RUN 3 TRIGGERS FOR HLEPTONS ANALYSES

2020	<i>Online</i>	ATLAS Tau & HLeptons Workshop
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EXPECTED ATLAS PERFORMANCE AT THE HL-LHC

2019	UMass Amherst, <i>Amherst, MA</i>	US ATLAS Workshop
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OVERVIEW OF TAU VS. JET IDENTIFICATION

2019	<i>Prague, Czech Republic</i>	ATLAS Tau & HLeptons Workshop
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BEYOND IMITATION: GENERATIVE CHOREOGRAPHY VIA MACHINE LEARNING

2019	UNC Charlotte, <i>Charlotte, NC</i>	International Conference on Computational Creativity
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RNN TAU IDENTIFICATION IN THE ATLAS HLT

2018	Fermilab, <i>Batavia, IL</i>	US LHC Users Association Meeting
	CERN, <i>Geneva, Switzerland</i>	ATLAS Machine Learning Workshop

THE 2018 ATLAS TAU TRIGGER & COMBINED PERFORMANCE

2018 U. of Pittsburgh, *Pittsburgh, PA* US ATLAS Workshop

ATLAS TAU TRIGGER & COMBINED PERFORMANCE AT HIGH μ

2018 CERN, *Geneva, Switzerland* ATLAS P&P Physics Plenary

FTK & THE TAU TRIGGER

2018 CERN, *Geneva, Switzerland* ATLAS TDAQ Week

Awards

2023	DOE Mission Science Allocation Award <ul style="list-style-type: none">Allocated over 120,000 GPU hoursTitle: “Multidisciplinary AI Models for Science”	<i>NERSC</i>
2021	Owen Chamberlain Postdoctoral Fellowship	<i>Lawrence Berkeley National Lab</i>
2018	Lightning Round Talk Winner	<i>US LHC Users Association</i>
	Women’s Faculty Forum Seed Grant	<i>Yale University</i>
2016	Winner, Windy City Physics Slam <ul style="list-style-type: none">PBS Chicago Interview Clip	<i>ICHEP</i>
	Distinguished Poster Award (Top 20 out of 500)	<i>ICHEP</i>
2015	Leigh Page Prize	<i>Yale University</i>
	Honorable Mention	<i>NSF Graduate Research Fellowship</i>
2014	Harvard-Cambridge Scholarship <ul style="list-style-type: none">Full tuition for a master’s program at Cambridge	<i>Harvard University</i>
	Julia Shaffner Memorial Prize <ul style="list-style-type: none">Outstanding woman in science	<i>Harvard University</i>
2013	President’s Challenge Finalist	<i>The Harvard Innovation Lab</i>
	15 Most Interesting Seniors	<i>The Harvard Crimson</i>
2012	Judges’ Award for Acting	<i>International Student Drama Festival</i>
	Certificate of Distinction in Teaching	<i>Harvard University</i>
	Caroline Isenberg Fellowship	<i>Harvard University</i>
	Elizabeth Cary Agassiz Fellowship	<i>Harvard University</i>
2011	Best Lead Actress in a Play	<i>Harvard Theater Award</i>

Press

2024 [Viewing the Standard Model with unprecedented detail through the lens of AI](#)
Berkeley Lab Physical Sciences News

- 2023 [ATLAS measures rare Higgs boson interaction with tau leptons](#), *ATLAS Briefing*
 “Scientists Begin Building AI for Scientific Discovery Using Tech Behind ChatGPT”
 • [Simons Foundation Press Release](#)
 • [Berkeley Lab Article](#)
- 2022 Interviewee on the Cognicast podcast
 • A wide-ranging discussion of my research trajectory across AI, physics, and art
 • [Episode webpage](#)
 • [Listen on Apple Podcasts](#)
- 2021 [Mariel Pettee successfully defends PhD thesis](#), *Yale Physics*
- 2020 [Advice to Women in STEM: Mariel Pettee](#), *Yale Scientific Magazine*
- 2019 [Feature on Yale University’s Instagram page](#)
[Featured on Women+ Art AI](#)
- 2016 [Scientists Battle for Physics Slam Crown](#), *PBS Chicago*
- 2013 [15 Most Interesting Seniors: Mariel N. Pettee](#), *The Harvard Crimson*

Teaching Experience

Graduate-level Courses on Scientific Teaching

2016	PHYSICS 530: Theory and Practice of Scientific Teaching for Physical Scientists	<i>Yale</i>
2014	ASTRO 302: Scientists Teaching Science	<i>Harvard</i>

Teaching Assistant Experience

Note: ▷ indicates courses for which I was the sole TA.

2016 - 2018	▷ PHYSICS 115: The Physics of Dance	<i>Yale University</i>
2018	▷ AMERICAN STUDIES 349: Technologies for Movement Research	<i>Yale University</i>
2017	PHYSICS 171: University Physics for the Life Sciences	<i>Yale University</i>
2016	PHYSICS 205L: Modern Physical Measurement	<i>Yale University</i>
2015	PHYSICS 165L: General Physics Laboratory	<i>Yale University</i>
2012 - 2013	▷ MATH 121: Linear Algebra and Applications	<i>Harvard University</i>
2013	MATH 110: Vector Space Methods for Differential Equations	<i>Harvard University</i>

Guest Lectures

2023	THE LANGUAGE OF MOVEMENT	<i>Amherst College, Amherst, MA</i>
2021	GRADUATE-LEVEL MACHINE LEARNING FOR PHYSICS	<i>U. of Alabama, Tuscaloosa, AL</i>

Student Mentorship

Fall 2024	Malika Golshan, post-grad in Physics at UC Berkeley <i>Weakly Supervised vs. Fully Supervised Learning</i>
Summer 2024	Abhipsha Das, grad student in Computer Science at NYU Courant Institute <i>Mapping the Landscape of Scientific Literature with LLMs</i>

Summer 2024	Luis Zerkowski, grad student in Artificial Intelligence at University of Amsterdam <i>Analyzing Choreographic Duets with Graph-Based Autoencoders</i>
Summer 2024	Zixuan Wang, grad student in Computer Science at Georgia Institute of Technology <i>Generating Choreographic Duets with Transformers</i>
2022 - 2024	Shahzar Rizvi, undergrad & then graduate student in Statistics at UC Berkeley <i>Learning Likelihood Ratios with Neural Network Classifiers</i> (published in JHEP) Next position: graduate student at MIT
2022 - 2024	Sowmya Thanvantri, undergrad in Physics at UC Berkeley <i>Weakly-Supervised Anomaly Detection in the Milky Way</i> (published in MNRAS) Next position: graduate student at Princeton
2022	Jason Wong, undergrad in Physics at UC Berkeley <i>Optimization Studies for the ATLAS OmniFold Measurement</i> (ATLAS preprint) Next position: graduate student at UC Berkeley

Leadership & Service

2024	Google Summer of Code Mentor <ul style="list-style-type: none"> Directly supervised two open-source 12-week research projects with students Organizer for NeurIPS Physical Sciences Workshop Co-Coordinator of Polymathic AI's future research & development cohort
2019 - 2024	Reviewer for NeurIPS Physical Sciences Workshop
2017 - 2021	HLeptons Trigger Liaison: Trigger Studies for the ATLAS $H \rightarrow \tau\tau$ Analysis Group
2020	Session Co-Convener, PyHEP 2020 (Conference for Python in High-Energy Physics)
2019	Reviewer for Women in Machine Learning (WiML) Workshop
2014	President, <i>The Signet Society of Arts & Letters</i> , Harvard University

Inclusion & Outreach

2022 - 2024	QuarkNet Speaker <ul style="list-style-type: none"> Presented a talk on physics, art, and ML to high school students Answered their questions in a separate hour-long interview
2020	Member of the American Physical Society's Inclusion, Diversity, and Equity Alliance
2019 - 2021	Member of the Yale Physics Climate & Diversity Committee <ul style="list-style-type: none"> Advocated for a department-wide discussion of discrimination in our community Contributed to the design of our department's Code of Conduct
2018 - 2020	US LHC Users Association advocacy trip to Capitol Hill <ul style="list-style-type: none"> Met with the offices of around 15 representatives from Congress each year Garnered support for high-energy physics research through DOE & NSF
2017 - 2018	Speaker, <i>Science in the News</i> , delivering scientific talks to the New Haven public Girls' Science Investigations at Yale <ul style="list-style-type: none"> Volunteer & "ask-a-scientist" Q&A speaker
2016	Winner, Windy City Physics Slam at ICHEP

Choreographer of *Form Factors*, a dance intervention with physicists at ICHEP
2015 - 2020 Yale Women in Physics Mentor

Scientific Essays

- 2024 [A high-dimensional jet-powered measurement of the strong force](#)
CERN Experimental Physics Newsletter
- 2023 [LLMs and the Language of Science](#)
APS Topical Group on Data Science Newsletter
- [xVal: A Continuous Number Encoding for LLMs](#)
Polymathic AI Collaboration Blog Post
- 2018 [Theories of Everything](#)
Sightline Arts
- Now or Never: The Case for a Larger Hadron Collider
Yale Distilled Magazine

Posters

- 2022 POINT CLOUD METHODS FOR PION RECONSTRUCTION IN THE ATLAS DETECTOR
Large Hadron Collider Physics Conference, *Online*
- 2020 CHOREO-GRAPH: LEARNING LATENT GRAPH REPRESENTATIONS OF THE DANCING BODY
Women in Machine Learning (WiML) Workshop at NeurIPS, *Online*
- RNN TAU IDENTIFICATION IN THE ATLAS HIGH-LEVEL TRIGGER
ATLAS Trigger & Data Acquisition Week at CERN, *Geneva, Switzerland*
- 2019 GENERATIVE & VARIATIONAL CHOREOGRAPHY VIA MACHINE LEARNING
Women in Machine Learning (WiML) Workshop at NeurIPS, *Vancouver, Canada*
- MACHINE WOMAN: PRESERVATION, MEMORY, FORGETTING, AND AI
Women's Faculty Forum, Yale University, *New Haven, CT*
- 2017 PERFORMANCE OF THE ATLAS TAU TRIGGER IN RUN 2
Advanced Computing & Analysis Techniques in Physics Research (ACAT), *Seattle, WA*
- 2016 TRIGGER STUDIES FOR THE MU2E EXPERIMENT (**Poster Award**: top 20 out of 500)
International Conference on High Energy Physics (ICHEP), *Chicago, IL*

Arts

AI & Art

- 2023 [mememormee](#): an evening-length work featuring AI-generated choreography set on six dancers, following a residency at Amherst College
- Spotlight Presentation at the 2023 NeurIPS Workshop on ML for Creativity & Design
- 2021 [Untitled Bird Project](#): a 1 hour pop-up exhibit featuring AI-generated bird calls situated in nature

2020 [Mirror Exercise](#): an AI-generated duet with myself

- Featured in [Le Mérite](#), at the Comédie de Caen, Théâtre des Cordes, France.
- Highlighted in the NeurIPS Workshop on ML for Creativity and Design's [AI Art Gallery](#)
- Digital exhibition at [Level Up: The Dramaturgy of Digital Performance & Design](#)
- Selected by the AI Transparency Institute & featured at the 2020 AI Governance Forum
- Boston Cyberarts Gallery exhibition *Perceptions / Distortions* (cancelled due to COVID)

Studio fellow, *Yale Center for Collaborative Arts & Media*

- Year-long paid fellowship to develop work across art & technology

2019 [SIGMA](#): a short film of AI-generated choreography

- Featured in the NeurIPS 2019 Workshop on ML for Creativity & Design's [AI Art Gallery](#)

Live Performance

2022 Dancer, [Sublimation](#)

- By Kinetech Arts
- Supported by the Djerassi Resident Artists Program and Creative Work Fund
- Performed at David Ruth Glass Studio, Oakland, CA

Dancer, [Detour](#)

- By Kinetech Arts, commissioned by the Berkeley Dance Project
- Performed at Zellerbach Playhouse, Berkeley, CA

2020 Dancer & Coordinator, *Transpositions*

- Dancer in virtual pieces by Brian Seibert, Renee Robinson, and Elm City Dance Collective

Choreographer, *Elon Musk and the plan to Blow Up Mars the musical*

- Yale Cabaret, dir. Liam Bellman-Sharpe

Dancer, Coordinator, & Rehearsal Director, *Yale Dance Lab*

- New work by choreographer Vicky Shick: "everywhere"

2019 Bill T. Jones/Arnie Zane Dance Company Intensive, *Yale Dance Theater*

- Dancer in a restaging of *D-Man in the Waters*

Featured performer, [The Hexagonal Hive and a Mouse in a Maze](#)

- Interviewed for a documentary by the Derek Jarman Lab, directed by Tilda Swinton

2018 Dancer, *Dance Drawings (For Jock)*

- Choreography by Emily Coates located at the Yale Art Gallery's Sol LeWitt exhibit

Paul Taylor Dance Company Intensive, *Yale Dance Theater*

- Leading role as "The Hostess" in the first restaging of Taylor's *Party Mix* in four decades

Featured performer, *Machine Woman*, dir. Anna Hagen & Jeannie Sui Wonders

- A short film documenting my AI-generated choreography research

2017 Choreographer: "La Mort du Chorégraphe", *A Different Drum Dance Company*

Urban Bush Women Intensive, *Yale Dance Theater*

2016 Gaga Intensive with Saar Harari & Lee Sher, *Yale Dance Theater*

Choreographer: "Rang Cherries", *A Different Drum Dance Company*

- 2015 Actor, *Attempts on Her Life*, dir. Tania Clarke, Corpus Playroom, *University of Cambridge*
 Dancer, *Evolution*, ADC Theatre, *University of Cambridge*
- 2014 Director/Writer/Choreographer: *Symmetry Breaking*, Farkas Hall, *Harvard University*
 • My senior physics thesis: an immersive multimedia performance about the Higgs boson
 Choreographer-in-Residence, *Harvard Dance Center*
 Dancer, *Paper Wing*, chor. Jill Johnson, Farkas Hall
- 2013 [Arts@CERN](#) Internship
 Eurydice, *Antigonick*, dir. Ianthe Demos, American Repertory Theater Mainstage
 Isabelle & Executive Producer, *The Edge of the Map*, dir. Calla Videt (Sightline Theater Company)
 Dancer, *At Last*, Loeb Experimental Theater, Harvard University
 Dancer, *On The Run*, Harvard Dance Center
- 2012 Vice-President & Mainstage Coordinator, *The Harvard-Radcliffe Dramatic Club*
 Lucy, *CryHurtFood*, Loeb Experimental Theater & Crucible Mainstage (Sheffield, UK)
 Director: *for the purpose of catching ourselves in the act of being the most*
 • Set the Guinness World Record for the longest telephone conversation between two people
- 2011 Co-founder and collaborator, *The Harvard Generalist* artistic collective
 Drama & Dance Proctor, *Harvard University Freshman Arts Program* (2011-2014)