Yajat Yadav

PERSONAL INFORMATION

Email	yajatyadav@berkeley.edu
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EDUCATION

UC Berkeley 2022 – 2026
Bacheolor of Science, Electrical Engineering and Computer Sciences

- GPA: **4.0 / 4.0**; Eta Kappa Nu (EECS Honor Society), Machine Learning @ Berkeley, Neurotech @ Berkeley
- Researching reinforcement learning and robot learning, advised by Prof. Sergey Levine
- Selected EECS Coursework (**A+ in bold**, Grad classes underlined): Computer Vision, Learning Theory, Deep RL (audit), **Machine Learning**, **Optimization Methods**, Computational Photography, **Combinatorial Algorithms**, **Signal Processing**, **Controls**, **Operating Systems**, **Computer Architecture**
- Selected Math Coursework (**A+ in bold**): **Probability and Random Processes**, Abstract Algebra, **Abstract Linear Algebra**, **Discrete Math**, **Multivariable Calculus**

PUBLICATIONS AND PREPRINTS

Robust Fine-tuning of Vision-Language-Action Robot Policies via Parameter Merging 2025
Yajat Yadav, Zhiyuan Zhou, Andrew Wagenmaker, Karl Pertsch, Sergey Levine
Submitted to ICLR 2026, under review

ONG: Orthogonal Natural Gradient Descent 2025
Yajat Yadav, Patrick Mendoza, Jathin Korrapati
Poster at NeurIPS 2025: Non-Euclidean Foundation Models and Geometric Learning Workshop, Class Project

VROOM: Visual Reconstruction over Onboard Multiview 2025
Yajat Yadav, Varun Bharadwaj, Tanish Baranwal, Jathin Korrapati
Preprint, Class Project

Agent-Based Modeling for Patient-Centered Clinical Decision Support in Neuro-oncology 2024
Eduardo Rodrigueaz Almaraz, Brenda Miao, **Yajat Yadav**, J de Groot, J Young, A Vo, A Butte, B S Mitchel, D Raleigh, N Butowski, Ahmed Alaa
Neuro-Oncology, Volume 26 Supplement 5

ACADEMIC EXPERIENCE

Robotic AI and Learning (RAIL) Lab, UC Berkeley Aug 2024 - present
Undergrad Researcher

- Working with Prof. Sergey Levine on robot learning, foundation models, and reinforcement learning.
- Developed generalizable finetuning technique to robustly extend robot foundation models to unseen tasks, submitted to ICLR 2026.
- Experimented with self-distillation, scaling test-time compute, and reasoning models for planning long-horizon robotics tasks.
- Currently investigating multi-task reinforcement learning approaches in robotic manipulation and control.

Center for Computational Biology, UC Berkeley Jan 2024 - Jul 2024
Undergrad Researcher

- Worked with Prof. Yun Song on utilizing deep learning in various genomics tasks.
- Designed a machine-learning based approach for choosing DNA primers to serve in HIV genome selective amplification experiments.
- Collaborated with biologists to experimentally validate predicted plasmid sites.
- Developed multimodal deep network utilizing DNA sequence, structure, and taxonomy to predict plasmids' origins of transfer.

Computational Precision Health, UCSF Jan 2023 - Dec 2023
Undergrad Researcher

- Worked with Prof. Ahmed Alaa on NLP for clinical-decision-making in oncology.
- Utilized domain-specific LLM agents to simulate clinical decision-making scenarios in neurooncology diagnosis, management, and treatment.
- Worked with several independent UCSF clinicians to incorporate domain knowledge and validate our method in real clinical settings.

Ley Lab, La Jolla Institute for Immunology Jun 2021 - Nov 2021
High School Researcher

- Researched immune cell migration to inflammation sites.
- Analyzed gene expression data from millions of cells, as well as clinical data from 15+ hospitals, to identify predictive features of immune cell mobility.

INDUSTRY EXPERIENCE

Amazon Web Services May 2024 - Aug 2024
Software Engineering Intern

- Developed AWS service for efficient propagation of AWS Orgs information through thousands of worldwide servers.
- Created a client-side library and algorithm for dynamically adjusting network requests, helping reduce 84% of timeout errors.
- Optimized service performance with distributed load testing, ensuring the service was robust to millions of requests/sec.

Borde. Inc. May 2023 - Aug 2023
Machine Learning Engineering Intern

- A company working on ML-based, high-volume inspection and sorting of various crops.
- Implemented object detection CV models for real-time classification of various crops during machine processing (100+ unit/s).
- Coded a full-stack, websocket-based web app for streamlining the end-to-end process of labeling crop samples for sorting, configuring model training, and deploying/monitoring models at edge devices across 10+ farms.

TEACHING

Teaching Assistant Spring 2025
EECS 126: Probability and Random Processes, UC Berkeley

Tutor + Reader Fall 2024, Spring 2024
EE 120: Signals and Systems, UC Berkeley

Academic Intern Fall 2023, Summer 2023
CS 70: Discrete Math and Probability Theory, UC Berkeley

Academic Intern Summer 2023
CS 61B: Data Structures, UC Berkeley

Academic Intern Spring 2023
CS 61A: Structure & Interpretation of Computer Programs, UC Berkeley

PROJECTS

Wetware Computing Spring 24
Neurotech @ Berkeley

- Reproducing the DishBrain experiment by culturing neurons and using reinforcement learning with electrical stimulation to teach them simple games like Pong.
- Wrote programs for encoding/decoding electrical signals and interfacing with an OpenAI Gym environment, enabling bidirectional communication with the neurons.

Clarity Dashboard Spring 23
Neurotech @ Berkeley

- Developed a React app for neurotechnology company Clarity. Features include secure storage of sensitive information, patient dashboard and live EEG session analytics.

Neural Focus Drviving Fall 22
Neurotech @ Berkeley

- Utilized Brainflow and MNE libraries to process raw EEG data in order to compute a running focus metric used to drive a RC car just by thinking.

HONORS AND AWARDS

EECS Evergreen Undergraduate Research Award 2025

EECS Evergreen Undergraduate Research Award 2024

Dean's List (4 semesters) 2022 - 2024

Honors to Date (5 semester) 2022 - 2025

Eta Kappa Nu EECS Honor Society 2023

US Presidential Scholar Candidate 2022

Top 8 in Nation, USA Biology Olympiad 2020

Top 50 in Nation, USA Biology Olympiad 2021

Gold Medal, British Biology Olympiad 2021, 2020

Gold Medal, iGEM (Intl. Genetically Engineered Machine) Research Competition 2020

SERVICE

Eta Kappa Nu Fall 2025
Department Relations Head

- Providing department tours to prospective high schoolers interested in UC Berkeley EECS.
- Working with the EECS department to host town halls, infosessions, & advising hours.

Machine Learning @ Berkeley Fall 2025
Education Committee Member

- Helping run a student-led UC Berkeley course and an ML workshop for local high school students.

Eta Kappa Nu Spring 2025, Fall 2024, Spring 2024, Fall 2023
Professional Development Officer

- Organized events like grad school panel, company infosession, etc. to connect the EECS community with professional opportunities.
- Provided career-related services like reviewing resumes, conducting mock interviews, and connecting students with industry mentors.

SKILLS

Languages	Python, Java, C++, C, Rust, Ruby, TypeScript, MATLAB, R, HTML/CSS, Bash, SQL, RISC-V, x86
Machine Learning	Jax/Flax, PyTorch, Tensorflow, OpenCV, SciPy, Hugging Face, Weights & Biases
Web Development	Reactt, Express.js, Django, Spring, JUnit, Mockito, Ruby on Rails
Dev Tools	Docker, Azure, AWS (EC2, S3, Lambda, CloudWatch), GitLab, Kubernetes, PostgreSQL, Berkeley DB