

MICHAEL PSENKA

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EDUCATION

UC Berkeley, *PhD* in Electrical Engineering and Computer Science Aug 2021 – present
GPA: 4.0/4.0 major, 3.95 overall. Stand-in prof. for discrete math & probability (CS 70), TA robotics (EECS 106B).

Princeton University, *B.A.* in Mathematics (minors: CS, Applied Math) Aug 2017 – May 2021
GPA: 3.6/4.0. *Department awards*: Greenberg Memorial Prize (mathematics, solved open problem), Manfred Pyka Memorial Prize (physics). HackPrinceton 1st place.

WORK EXPERIENCE

Research Scientist Intern w/ Yann LeCun @ Meta May – Dec 2025
• Planning and reasoning for world models. Created new SOTA planner, scales to modern video world models.

Co-head Instructor @ UC Berkeley Jun – Aug 2022
• Organized and taught an undergraduate course on discrete math and probability theory. [Link to class page](#).

Undergraduate Researcher @ Stanford University Jun – Aug 2020
• Worked with Dr. Tolga Birdal on a novel approach to multi-view reconstruction in computer vision.
• Developed method bypassed pairwise view registration through direct global structure estimation.

Undergraduate Researcher @ Princeton University Jun – Sept 2019
• With Prof. Nicolas Boumal, developed a SOTA method for handling curvature for second-order optimization over tensor train manifolds.

Machine Learning & AI Engineer @ Moovila, Inc. Jan – May 2025, Jun – Aug 2018, '17, '16
Selected contributions:

- Co-inventor on a patent for proprietary software, mathematical modeling for visualizing large-scale connections. Remains a core component of the primary software delivered to all customers.
- Helped develop a custom integrated LLM chatbot and tooling for increased functionality and ease of use.

SELECTED PUBLICATIONS

S. Raja*, M. Šípká*, **M. Psenka***, T. Kreiman, M. Pavelka, and A. S. Krishnapriyan (2025). “Action-Minimization Meets Generative Modeling: Efficient Transition Path Sampling with the Onsager-Machlup Functional”. *ICML 2025*. [Link to paper](#).

M. Psenka*, A. Escontrela*, P. Abbeel, and Y. Ma (2024). “Learning a Diffusion Model Policy from Rewards via Q-Score Matching”. *ICML 2024*. [Link to paper](#).

M. Psenka, D. Pai, V. Raman, S. Sastry, and Y. Ma (2024). “Representation Learning through Manifold Flattening and Reconstruction”. *JMLR*. [Link to paper](#).

R. Arbon*, M. Mannan*, **M. Psenka***, and S. Ragavan* (2022). “A Proof of The Triangular Ashbaugh-Benguria-Payne-Pólya-Weinberger Inequality”. *Journal of Spectral Theory*. [Link to paper](#).

SKILLS

Programming Python (pytorch, JAX, numpy), C#, C, MATLAB, Java, HTML/CSS, JavaScript
Misc. Linux, Shell, L^AT_EX, Git, AWS

INTERESTS

Piano, snowboarding, boxing, skateboarding, pole vaulting, music production, chess, mac and cheese, whiskey