

# Rohan Taori

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## Education

### Stanford University

Sep '20 - Present

Ph.D. Candidate in Computer Science

Studying the foundations of machine learning with an emphasis on the reliability of real-world systems.

### University of California, Berkeley

Aug '16 - May '19

B.S. in Electrical Engineering and Computer Science

GPA: 3.98

Awards: Regents' & Chancellor's Scholar (top 2% of students), Highest Honors & Dean's List (top 3% of engineers)

Memberships: Eta Kappa Nu (HKN) honor society, 2019 Accel Scholar (program with VC firm Accel and Berkeley)

## Research & Work

### Berkeley AI Research – Undergraduate Researcher

Aug '16 - July '20

- Worked with Prof. Ben Recht on understanding robustness in real-world distribution shifts.
  - Study was the largest to date: compared ~200 models with 200+ ImageNet distribution shifts.
- Worked with Prof. Jitendra Malik on sample efficient deep RL using non-parametric value functions.
- Worked with Prof. Carlo Séquin on finding optimal solutions of irregular solids via gradient descent.

### Uber ATG – AI Research Resident

Sep '19 - Mar '20

- Worked with Prof. Raquel Urtasun on large-scale traffic simulation for self-driving vehicles.

### NVIDIA – Deep Learning Research Intern

May - Aug '19

- Worked with Dr. Bryan Catanzaro on new techniques for large-scale texture synthesis in near real-time.
  - Developed a new architecture which improves generalization to unseen test-time textures.

### Facebook – Software Engineering Intern

May - Aug '18

- Built infrastructure to allow bots to send messages to hundreds of millions of users on the platform.

### Salesforce – Software Engineering Intern

May - Aug '17

- Developed an API tool to allow external developers to integrate with the Salesforce database via REST calls.

## Teaching

### Machine Learning @ Berkeley – VP of Education

May '17 - Dec '18

- Led a 15-person team running two student classes, workshops, member bootcamps, and weekly reading groups.
- Created material for new deep learning class of 200 students; spearheaded creation of machine learning workshop series.
- Goal to bring ML education to students: content available for [fall17](#) / [spring18](#) / [fall18](#) / [member class](#) / [workshops](#)

## Papers

**Rohan Taori**, Achal Dave, Vaishaal Shankar, Nicholas Carlini, Benjamin Recht, Ludwig Schmidt. *Measuring Robustness to Natural Distribution Shifts in Image Classification*. In submission to NeurIPS 2020. [\[paper\]](#) / [website](#) / [code](#)

Guilin Liu, **Rohan Taori**, Zhiding Yu, Ting-Chung Wang, Edward Liu, Karan Sapra, Fitsum Reda, Brandon Rowlett, Andrew Tao, Bryan Catanzaro. *Real-Time Universal Texture Synthesis using Feature Maps as Transpose Convolution Filters*. Under review.

**Rohan Taori**, Amog Kamsetty, Brenton Chu, Nikita Vemuri. *Targeted Adversarial Examples for Black Box Audio Systems*. Published at the 2019 IEEE Security and Privacy Workshops. [\[paper\]](#)

Murtaza Dalal\*, Alexander Li\*, **Rohan Taori\***. *Autoregressive Models: What Are They Good For?* Appeared in NeurIPS 2019 Information Theory and ML Workshop. [\[paper\]](#)

## Projects

### Programming Language Classification – ML@B partnership with GitHub

Aug - Dec '16

- Implemented 2-layer LSTM to classify programming languages, reducing error rate 40% compared to GitHub's baseline.

### Take a Picasso – CalHacks 3.0 Project

Oct '16

- Robotic sketch artist; won Best Hardware Hack, Best 3D Printed Hack, and Peter Thiel's 1517 Fund grant. [\[devpost\]](#)