

Education

- **Massachusetts Institute of Technology (MIT):** GPA - 5.0/5.0 Cambridge, MA
B.Sc. in Computer Science 2015 - 2019
– *Selected coursework:* 18.657 High Dimensional Probability, 6.854 Advanced Algorithms, 9.520 Statistical Learning Theory, 6.252 Nonlinear Optimization, 18.408 The Algorithmic Toolkit, 6.853 Algorithmic Game Theory, 18.102 Functional Analysis
- **Massachusetts Institute of Technology (MIT):** GPA - 5.0/5.0 Cambridge, MA
M.Eng. in Computer Science 2018 - 2019
- **Massachusetts Institute of Technology (MIT):** GPA - 5.0/5.0 Cambridge, MA
Candidate for Ph.D. in Computer Science 2019 - ?

Work Experience and Research

- **Two Sigma** New York, NY
Quantitative Research Intern Summer 2018
– Worked towards understanding the fundamentals of deep reinforcement learning
- **Google Brain** Mountain View, CA
Research Intern Summer 2017
– Used style transfer based domain adaptation to improve semantic segmentation methods
- **Gifford Lab, MIT CSAIL** Cambridge, MA
UROF June 2014 - Spring 2017
– Research on modelling transcription factor binding with machine learning
- **Apple** Cupertino, CA
Software Engineering Intern Summer 2016
– Developed cross-device database synchronization system for iOS in Objective-C and C++

Publications (* denotes equal contribution)

1. **Logan Engstrom***, Andrew Ilyas*, Shibani Santurkar, Dimitris Tsipras, Jacob Steinhardt, and Aleksander Madry. Identifying statistical bias in dataset replication. *ICML*, 2020
2. **Logan Engstrom***, Andrew Ilyas*, Shibani Santurkar, Dimitris Tsipras, Firdaus Janoos, Larry Rudolph, and Aleksander Madry. Implementation matters in deep rl: A case study on ppo and trpo. In *International Conference on Learning Representations* **Oral Presentation**, 2020
3. Andrew Ilyas*, **Logan Engstrom***, Shibani Santurkar, Dimitris Tsipras, Firdaus Janoos, Larry Rudolph, and Aleksander Madry. A closer look at deep policy gradients. In *International Conference on Learning Representations* **Oral Presentation**, 2020
4. Andrew Ilyas*, Shibani Santurkar*, Dimitris Tsipras*, **Logan Engstrom***, Brandon Tran, and Aleksander Madry. Adversarial examples are not bugs, they are features. *NeurIPS Spotlight Presentation*, 2019
5. Shibani Santurkar*, Dimitris Tsipras*, Brandon Tran*, Andrew Ilyas*, **Logan Engstrom***, and Aleksander Madry. Image synthesis with a single (robust) classifier. *NeurIPS*, 2019
6. Dimitris Tsipras*, Shibani Santurkar*, **Logan Engstrom***, Alexander Turner, and Aleksander Madry. Robustness may be at odds with accuracy. *ICLR*, 2019

7. Andrew Ilyas*, **Logan Engstrom***, Ludwig Schmidt, and Aleksander Madry. Prior convictions: Black-box adversarial attacks with bandits and priors. *ICLR*, 2019
8. **Logan Engstrom***, Brandon Tran*, Dimitris Tsipras*, Ludwig Schmidt, and Aleksander Madry. Exploring the landscape of spatial robustness. *ICML*, 2019
9. **Logan Engstrom***, Andrew Ilyas*, and Anish Athalye*. Evaluating and understanding the robustness of adversarial logit pairing. *NeurIPS Machine Learning and Computer Security Workshop*, 2018
10. Andrew Ilyas*, **Logan Engstrom***, Ludwig Schmidt, and Aleksander Madry. Prior convictions: Black-box adversarial attacks with bandits and priors. *ICLR*, 2019
11. Andrew Ilyas*, **Logan Engstrom***, Anish Athalye*, and Jessy Lin*. Query-efficient black-box adversarial examples. *ICML*, 2018
12. Anish Athalye*, **Logan Engstrom***, Andrew Ilyas*, and Kevin Kwok. Synthesizing robust adversarial examples. *ICML 2018, Demo at NeurIPS 2017 Machine Learning and Computer Security Workshop*.
13. Daniel Kang, Richard Sherwood, Amira Barkal, Tatsunori Hashimoto, **Logan Engstrom**, and David Gifford. Dnase-capture reveals differential transcription factor binding modalities. *PloS one*, 2017

Preprints (* denotes equal contribution)

1. Hadi Salman*, Andrew Ilyas*, **Logan Engstrom**, Ashish Kapoor, and Aleksander Madry. Do adversarially robust imagenet models transfer better?, 2020
2. Kai Xiao, **Logan Engstrom**, Andrew Ilyas, and Aleksander Madry. Noise or signal: The role of image backgrounds in object recognition, 2020
3. **Logan Engstrom***, Andrew Ilyas*, Shibani Santurkar*, Dimitris Tsipras*, Brandon Tran*, and Aleksander Madry. Adversarial robustness as a prior for learned representations. 2019

Selected Projects

- **TensorFire** (AI Grant Spring 2017 winner) TensorFlow, Python, JavaScript
In-browser, flaming-fast, gpu-accelerated deep learning 2017
– 1000x faster web-based deep learning models than previous approaches
- **ConvNet for Fast Style Transfer** (6,000+ GitHub stars) TensorFlow, Python
Add styles from famous paintings to any photo in a fraction of a second 2016
– Deep convolutional neural network for high quality perceptual style transfer
- **Sistine** (First Place at Greylock Hackfest) Python/OpenCV
Install a touch screen on any laptop with only a \$1 mirror and built-in webcam 2016
– Used computer vision to create a touch screen using the screen reflection onto a webcam
- **Hextris** (1,000+ GitHub Stars) JavaScript
More than 5,000,000 downloads - Free and open-source iOS/Android game 2014 - 2015

Awards

- **MathWorks Fellowship** *Recipient* 2020-2021
- **Morris Joseph Leven Award for best Masters Thesis** *Winner* 2019
- **NSF Graduate Research Fellowship Award** *Winner* 2019
- **Siebel Scholarship** *Recipient* 2018-2019
- **AI Grant** (<https://aigrant.org/>) *Grant Winner* 2017
- **Andreessen Horowitz Battle of the Hacks** *First Place* 2016

- Greylock Hackfest *First Place* 2016
- WildHacks (Northwestern's Collegiate Hackathon) *Grand Prize* 2015, 2016
- YHack (Yale's Collegiate Hackathon) *Top 8, Facebook Prize* 2015, 2016
- PennApps (UPenn's Collegiate Hackathon) *Top 8, Apple Prize* 2014

Personal Interests

- HackMIT and Blueprint Organizing Team 2015-2017
 - Organized HackMIT's largest hackathon for 3 years
 - Organized Blueprint, MIT's high school hackathon
- Baker Executive Committee *Freshman Representative* 2015-2016
- MIT Undergraduate Student Advisory Group in EECS (USAGE) *Member* 2016-2017
- Student Information Processing Board (SIPB) *Member* 2016-present
- Baker Intramural Dodgeball Team *Won MIT Division B IM league* 2016
- Simmons Intramural Soccer Team *Won MIT Division C IM league* 2016