Logan Engstrom

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http://loganengstrom.com

Education

- **Massachusetts Institute of Technology (MIT):** GPA - 5.0/5.0   Cambridge, MA
  Candidate for B.Sc. in Computer Science   *2015 - 2018*

Work Experience and Research

- **Madry Lab, MIT CSAIL**   Cambridge, MA
  SuperUROP   *Sept 2017 - Present*
  - Research on designing adversarially robust deep learning models
- **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
  UROP   *June 2014 - Present*
  - 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. Dimitris Tsipras*, Shibani Santurkar*, **Logan Engstrom***, Alexander Turner, and Aleksander Madry. There is no free lunch in adversarial robustness (but there are unexpected benefits). *In review at NIPS 2018*, 2018

2. Andrew Ilyas*, **Logan Engstrom***, Ludwig Schmidt, and Aleksander Madry. Prior convictions: Black-box adversarial attacks with bandits and priors. *In review at NIPS 2018*, 2018

3. **Logan Engstrom***, Brandon Tran*, Dimitris Tsipras*, Ludwig Schmidt, and Aleksander Madry. A rotation and a translation suffice: Fooling cnns with simple transformations. *In review at NIPS 2018*, 2017

4. Anish Athalye*, **Logan Engstrom***, Andrew Ilyas*, and Kevin Kwok. Synthesizing robust adversarial examples. *ICML 2018, Demo at NIPS Machine Learning and Computer Security Workshop*, 2017

5. Andrew Ilyas*, **Logan Engstrom***, Anish Athalye*, and Jessy Lin*. Query-efficient black-box adversarial examples. *ICML 2018*, 2017

6. Daniel Kang, Richard Sherwood, Amira Barkal, Tatsunori Hashimoto, **Logan Engstrom**, and David Gifford. Dnase-capture reveals differential transcription factor binding modalities. *PloS one*, 2017

Personal Interests

- **HackMIT and Blueprint Organizing Team**   2015-2017
  - Organized HackMIT's largest hackathon for 3 years
  - Organized Blueprint, MIT's high school hackathon
- **Student Information Processing Board (SIPB)** *Member*   2016-present
- **MIT Undergraduate Student Advisory Group in EECS (USAGE)** *Member*   2016-2017

- **Baker Executive Committee** *Freshman Representative*   2015-2016
- **Baker Intramural Dodgeball Team** *Won MIT Division B IM league*   2016
- **Simmons Intramural Soccer Team** *Won MIT Division C IM league*   2016

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

- **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