

Education

- **Massachusetts Institute of Technology** B.Sc. CS, B.Sc. Math, M.Eng. CS (2018)
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Publications (* = equal contribution)

- Andrew Ilyas*, Logan Engstrom*, Anish Athalye*, Jessy Lin.* “Query-efficient Black-box Adversarial Examples.” Under review; arXiv preprint (2017).
 - Anish Athalye*, Logan Engstrom*, Andrew Ilyas*, Kevin Kwok. “Synthesizing Robust Adversarial Examples.” Under review; arXiv preprint. Oral presentation/Spotlight Demo at Machine Learning and Computer Security Workshop (NIPS 2017).
 - Constantinos Daskalakis*, Andrew Ilyas*, Vasilis Syrgkanis*, Haoyang Zeng*. “Training GANs with Optimism.” Under review; arXiv preprint. Accepted to Deep Learning Theory and Practice Workshop (NIPS 2017).
 - Andrew Ilyas, Joana M.F. da Trindade, Raul C. Fernandez, Samuel Madden. “Extracting Syntactic Patterns From Databases.” Under review; arXiv preprint (2017).
 - Ilyas, Andrew, “MicroFilters: Harnessing Twitter for Disaster Management.” *IEEE Global Humanitarian Technology Conference* (2014). Chairman’s Award for Excellence in Technical Presentation.
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Professional Experience

- **Research Assistant** at MIT EECS *Fall 17’–Present*
 - Working under Prof. Constantinos Daskalakis in Theoretical Computer Science Lab at MIT CSAIL
 - **Research Intern** at Two Sigma Labs *Summer 2017*
 - Working at Two Sigma Labs, an academic research team within Two Sigma Investments, on **theoretical ML** and **convex optimization**
 - **Undergraduate Researcher (UROP)**
 - Poggio AI lab, Center for Brains Minds and Machines, MIT *Spring-Fall ’17*
 - Visualization of memory and invariances in deep neural networks
 - Madden Database Lab, CSAIL MIT *Spring ’16 – ’17*
 - Work on structure extraction in text data
 - Torralba Vision Lab, CSAIL MIT *Fall ’15*
 - Investigating predictive power of CNNs; built car crash detection demo
 - **Machine Learning Intern** at Twine Health *Summer ’16*
 - Sole member of the Data Science team, responsible for Data Science and ML initiatives.
 - **Signal Proc. Intern, Lead WatchOS dev** at Cambridge Mobile Telematics *Summer ’15*
 - Worked on the Signal Processing team continuing work at CSAIL MIT with Prof. Madden in Summer 2014; built commercial WatchOS app from scratch
 - **MicroFilters (independent published research)** *Fall ’14*
 - A **crisis-mapping** system, acquired by UN Office for Coordination of Humanitarian Affairs for disaster response after Typhoon Yolanda
 - **Research Intern** at Cambridge Mobile Telematics *Summer ’14*
 - Worked directly under Prof. Samuel Madden on MIT CSAIL; signal processing for texting-while-driving detection in mobile devices
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Awards and Honors

- First Place, Battle of the Hacks v3, v4 at a16z (Venture Capital Firm) 2016, 2017
 - Loran Scholarship for top 30 leaders in Canada (Declined) 2015
 - Second Place, International Autonomous Robot Racing Competition 2015
 - Canadian Open Math Challenge top 50, qual. to Canadian Math Olympiad 2015
 - Chairman's Award at IEEE Global Humanitarian Technologies Conference 2014
 - Silver Medal at Canada-Wide Science Fair 2014
 - Gold Medal, Division Champion, Award of Merit, Best in Fair at Waterloo-Wellington Regional Science Fair 2014
 - National Robotics Olympiad Winner, Qatar (year abroad) — qualified to World Robotic Olympiad, Malaysia 2012
 - Bronze Medal at Canada-Wide Science Fair 2012
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Implementation Projects

- **Cubic:** Winner, Battle of the Hacks v4 (2017)—Smart context generation for general browsing
 - **Falcon:** Winner, *Battle of the Hacks v3 (2016)*— Cross-platform browser history
 - **Snorkel:** Built at MHacks—a tool for beginners to learn about machine learning
 - **Pompeii:** Top 15 project, *Hack the North 2014*—App to help students keep up with courses
 - **Apps:** Two apps published, “Draft” (2015) and “Lightning Labyrinth” (2013)
 - **HackMIT:** Member of the organizing committee of HackMIT since 2015
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Personal Interests

- Table Tennis (competitive), Soccer
 - Instruments (Piano, Violin)
 - Languages (Egyptian Arabic, French, learning Italian)
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Selected Press (by Project)

- **IEEE Spectrum:** Hacked Dog pics Can Play Tricks on Vision AI (<http://bit.ly/2kMtxhU>, 2017)
 - **WIRED:** Researchers fooled A Google AI into thinking ... (<http://bit.ly/2DF8qWE>, 2017)
 - **Fast Co.Design:** How MIT Students Fooled A Google Algorithm (<http://bit.ly/2BldNqI>, 2017)
 - **Engadget:** MIT students trick an AI into classifying this turtle as a gun (engt.co/2iXG5kO, 2017)
 - **The Guardian:** Shotgun shell: Google's AI thinks this turtle is a rifle (bit.ly/2zGWlRC, 2017)
 - **Fortune:** Why Google's Artificial Intelligence Confused a Turtle for a Rifle (for.tn/2zGT44N, 2017)
 - **CTV News:** Haiyan responders get boost from Waterloo teen's program (bit.ly/1ktT9Yo, 2014)
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