

# Nick Locascio

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nicklocascio.com

## Education

*Bachelors of Science* - Computer Science June 2016  
*Masters of Engineering* - Computer Science June 2017  
Massachusetts Institute of Technology

## Research

**High-Risk Breast Lesions: A Machine Learning Model to Predict Pathologic Upgrade and Reduce Unnecessary Surgical Excision (Journal of Radiology, 2017)**

- Developed machine learning model for reducing unnecessary surgical excisions for patients with High-Risk Lesions. Work done in collaboration with MGH.

**Patch-Aggregate Networks for High-Resolution Mammography (Master's Thesis, 2017)**

- Developed novel interpretable multi-stage CNN for clinical mammography screening and diagnosis.

**Neural Generation of Regular Expressions from Natural Language with Minimal Domain Knowledge (EMNLP, 2016)**

- Neural Attention Model for generating Regular Expressions given natural language descriptions.
- Created largest parallel corpus of natural language to regular expressions.

## Authorship and Teaching

**Fundamentals of Deep Learning (Book, O'Reilly Media)**

- *Co-Author, Editor*

- Co-Author and editor of O'Reilly's Fundamentals of Deep Learning book.

**6.S191: Introduction to Deep Learning (Course, MIT)**

- *Instructor*

- Founded and taught MIT's first course on Deep Learning to over 300 students, with sponsorship from Google Brain, NVIDIA, Amazon Alexa, and IBM Watson.

**Machine Learning with Scikit-Learn and Tensorflow (MOOC, Packt Media)**

- *Instructor*

- Created and taught an online video course about hands-on machine learning.

## Industry

**GeoPredict** — San Francisco, CA

- *Co-Founder*

Sept 2017 - Feb 2018

- Developed a geospatial machine learning platform for rare earth mineral resource discovery, focused on electric car battery materials.
- Platform included model interpretability tools for clients to verify our findings with internal geologists.

**Symantec** — Cambridge, MA

- *Principal Data Scientist*

September 2016 - September 2017

- Built deep learning systems for dynamic cyber threat and insurance modeling.
- Worked on cybersecurity machine learning theory and bounds on cyberinsurance market dynamics.

**Perch Fitness** — Cambridge, MA

- *Computer Vision Intern*

June 2016 – Sept 2016

- Developed highly efficient CNN architectures for automatic live form and exercise tracking from RGB-D video streams.
- Developed facial recognition login system for hands-free usage of the Perch device.

**Pinterest** — San Francisco, CA

- *Machine Learning Intern*

June 2015 – Sept 2015

- Worked on the Pin Recommendations team building machine learning models from big data pipelines.
- Enhanced our in-house DSL for distributed training and deployment of machine learning models.

## Skills

*Languages:* Python, Java, C++, Javascript

*Tools:* TensorFlow, PyTorch, numpy, scipy, keras, Node, React