

ANGIE BOGGUST

aboggust@mit.edu
angieboggust.com

EDUCATION

Ph.D. in Computer Science, Massachusetts Institute of Technology
Advisor: Arvind Satyanarayan, Visualization Group, CSAIL

M.Eng in Computer Science, Massachusetts Institute of Technology
Concentrations: Machine Learning and Human Computer Interaction
Thesis: Unsupervised Audio-Visual Learning in the Wild
Advisor: James Glass, Spoken Language Systems Group, CSAIL
GPA: 5.0/5.0

May 2020

S.B. in Computer Science, Massachusetts Institute of Technology
Minor in Economics
GPA: 4.6/5.0

June 2018

RESEARCH

MIT CSAIL: Visualization Group

2020 - Present

Research Assistant with Prof. Arvind Satyanarayan
Investigating machine learning model behavior and visual techniques to faithfully surface insights to stakeholders.

MIT CSAIL: Visualization Group

2019 - 2020

Research Collaborator with Prof. Arvind Satyanarayan
Designed and evaluated visual systems to compare machine learning models as a way to drive the creation of robust and fair models.

MIT CSAIL: Spoken Language Systems Group

2018 - 2020

Research Assistant with Dr. James Glass
Explored self-supervised machine learning methods capable of learning semantic concepts from unlabeled instructional video.

MIT CSAIL: Spoken Language Systems Group

2016 - 2018

Undergraduate Researcher with Dr. James Glass
Applied deep learning and regression techniques to detect early stage Alzheimer's Disease and clinical depression via patient speech.

Leiden Institute of Advanced Computer Science

Jan 2016

Visiting Researcher with Profs. Aske Plaat and Siegfried Nijssen
Investigated decision tree models to predict a patient's blood transfusion need from clinical time-series data to assist ICU physicians in making patient-care decisions.

MIT Glenn Lab for the Science of Aging

2015 - 2016

Undergraduate Researcher with Prof. Leonard Guarente
Designed statistical models and data visualizations to investigate correlations between gene expression and the onset of Alzheimer's Disease.

INDUSTRY

IBM Research

Summer 2020

Research Intern with Dr. Hendrik Strobelt
Developed methods to visualize model behavior via comparison of model explanations and human-annotated ground truths. Resulted in a VISxAI explainable and NeurIPS Demo.

Google

Summer 2019

Software Engineering Intern in Cloud Products
Designed interactive user interfaces to display resource statistics to Google Cloud clients.

Google Summer 2018
Software Engineering Intern in Tools and Infrastructure
Built semi-supervised ensemble models to improve the efficiency of internal debugging systems used by over 1700 monthly Googlers.

Microsoft Artificial Intelligence and Research Summer 2017
Applied Scientist Intern
Designed Generative Adversarial Network (GAN) architectures to perform information retrieval and click prediction tasks for Bing Search.

PUBLICATIONS

Shared Interest: Human Annotations vs. AI Saliency 2020
[Angie Boggust](#), Benjamin Hoover, Arvind Satyanarayan, Hendrik Strobelt
NeurIPS Demo; VISxAI Workshop at IEEE VIS (shared-interest.csail.mit.edu)

AVLnet: Learning Audio-Visual Language Representations from Instructional Videos 2020
Andrew Rouditchenko*, [Angie Boggust](#)*, David Harwath, Brian Chen, Dhiraj Joshi, Samuel Thomas, Kartik Audhkhasi, Hilde Kuehne, Rameswar Panda, Rogerio Feris, Brian Kingsbury, Michael Picheny, Antonio Torralba, James Glass
arXiv:2006.09199

Unsupervised Audio-Visual Learning in the Wild 2020
[Angie Boggust](#)
MIT M.Eng Thesis

Embedding Comparator: Visualizing Differences in Global Structure and Local Neighborhoods via Small Multiples 2019
[Angie Boggust](#)*, Brandon Carter*, Arvind Satyanarayan
arXiv:1912.04853

Grounding Spoken Language in Unlabeled Video 2019
[Angie Boggust](#), Kartik Audhkhasi, Dhiraj Joshi, David Harwath, Samuel Thomas, Rogerio Feris, Dan Gutfreund, Yang Zhang, Antonio Torralba, Michael Picheny, James Glass
Computer Vision and Pattern Recognition (CVPR) Sight and Sound Workshop

TALKS

Shared Interest: Human Annotations vs. AI Saliency 2020
NeurIPS Demo

Shared Interest: Human Annotations vs. AI Saliency 2020
VISxAI Workshop at IEEE VIS

Embedding Comparator: Visualizing Differences in Global Structure and Local Neighborhoods via Small Multiples 2019
Selected Lightning Talk
CSAIL-MSR Trustworthy and Robust AI Workshop

POSTERS

Grounding Spoken Language in Unlabeled Video 2019
[Angie Boggust](#), Kartik Audhkhasi, Dhiraj Joshi, David Harwath, Samuel Thomas, Rogerio Feris, Dan Gutfreund, Yang Zhang, Antonio Torralba, Michael Picheny, James Glass
IBM AI Week: AI Horizons Colloquium Poster Session

Making Sense of Sight and Sound: Learning without Annotations 2019
[Angie Boggust](#), Kartik Audhkhasi, Dhiraj Joshi, David Harwath, Samuel Thomas, Rogerio Feris, Dan Gutfreund, Yang Zhang, Antonio Torralba, Michael Picheny, James Glass
MIT-IBM Watson AI Lab Poster Reception

TEACHING

6.009: Fundamentals of Programming

Spring 2020

Graduate TA with Profs. Ana Bell, Duane Boning, Max Goldman, and Adam Hartz

Taught fundamental programming concepts in Python to 400 students, in-person and remotely. Led a team of over 100 undergraduate TAs to conduct daily office hours.

6.009: Fundamentals of Programming

Fall 2019

Graduate TA with Profs. Srinivasa Devadas and Erik Demaine

Developed new teaching materials, laboratory assignments, and exams for a course of 400 students. Delivered weekly recitations teaching fundamental programming concepts to a group of 30 students. Supervised weekly office hours.

HONORS

John W. Jarve (1978) Fellowship

2020

MIT graduate fellowship for the 2020-2021 academic year.

Palantir Women in Technology Scholarship

2016

Awarded \$5,000 based on academic and research excellence. Selected as one of ten finalists out of over 3000 applicants.

Johnson & Johnson Scholar

2016

Awarded \$5,280 for outstanding undergraduate research. Selected as one of 18 scholars from all of MIT's summer undergraduate researchers.

SERVICE

MIT Admissions

2019 - Present

Educational Counsellor

Interview prospective undergraduate students on behalf of the Admissions Committee to provide additional context about the applicants and answer questions about MIT.

Academics for the Future of Science

2015

Founder and President

Pioneered an MIT student group focused on fundraising and publicity initiatives to promote government funding for science and technology. Created a web-based tool allowing citizens to easily write to congress expressing their concerns.