
BACKGROUND

Exploring Fairness in Machine Learning

Amit Gandhi
Graduate Researcher, MIT

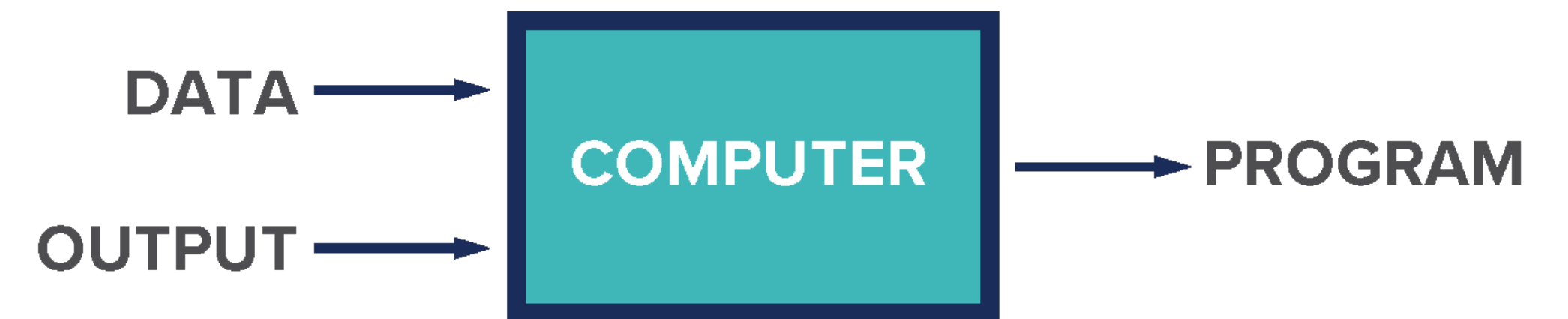
Machine Learning

A Brief Overview

TRADITIONAL PROGRAMMING



MACHINE LEARNING



© [Machine Learning Mastery](https://ocw.mit.edu/help/faq-fair-use/). All rights reserved. This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/help/faq-fair-use/>

Examples

Application Areas for Machine Learning

Healthcare

Empowering Community Healthcare Workers



© Pippa Ranger/DFID. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/help/faq-fair-use/>

Workforce Development

Reducing Unemployment Rates



image source:
MIT D-Lab

Financial Inclusion

Credit-worthiness Using Non-traditional Metrics



Image courtesy of [Rosenfeld Media](#) on Flickr. Used under CC BY.

Machine Learning

Access and Ethics

Access to ML

Increasing Access through Academia and Resources



© [scikit](https://scikit-learn.org/). All rights reserved. This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/help/faq-fair-use/>

© [ALU](https://alum.mit.edu/). All rights reserved. This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/help/faq-fair-use/>

ML Ethics Research

A Growing Community



FAT*

Ethical and Appropriate Usage Example

Gender-differentiated Credit Scoring



© Única Mendez. All rights reserved. This content is excluded from our Creative Commons license. For more information, see <https://ocw.mit.edu/help/faq-fair-use/>

Module Overview

Course Breakdown

- Module 1 - Introduction to Ethics in Machine Learning
- Module 2 - Examples of Ethical Challenges in ML
- Module 3 - A Framework for Addressing Ethical Challenges with a Practical Example
- Module 4 - Case Studies with Data

Thank you

Amit Gandhi
Graduate Researcher, MIT

amitg@mit.edu

MIT OpenCourseWare
<https://ocw.mit.edu>

RES.EC-001 Exploring Fairness in Machine Learning
Spring 2019

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.