KENNETH COX

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EDUCATION

Massachusetts Institute of Technology *August 2018 - June 2023*
S.B. in Biology   GPA: 4.6/5.0

CAREER OBJECTIVE

Combine rigorous scientific thinking with knowledge of humans and human societies to understand and remove obstacles to human flourishing.

RESEARCH

DNA Repair via Homologous Recombination in *S. Pombe* *June 2017 - August 2018*
Worked as a research intern at the Yale University School of Medicine, in the lab of Megan King investigating the components of homology-directed DNA repair in *S. pombe* yeast cells. Research published under the title "Homology-directed repair involves multiple strand invasion cycles in fission yeast" in the journal *Molecular Biology of the Cell*.

Nucleic Acid Observatory *Summer 2022*
Worked with biosecurity experts in the lab of Kevin Esvelt on the basics of a Nucleic Acid Observatory system. Part of my work involved running qPCRs and analyzing the results, which I automated (using scripts I wrote and put on this repository).

EPPA Model Data Analysis *January 2021 - Present*
Currently working as a research assistant on a project that applies scenario discovery techniques to the Emissions Prediction and Policy Analysis (EPPA) model. A first round of results has been published under "Representing Socio-Economic Uncertainty in Human Systems Models" (AGU Earth's Future), and a second round of results is currently in draft under the title "Application of Scenario Discovery Techniques to Probabilistic Ensembles in Exploration of Energy Futures". Through a collaboration, I also have authorship on a forthcoming paper entitled "Compounding uncertainties in economic and population growth increase tail risks for relevant outcomes across sectors".

TECHNICAL STRENGTHS

Modeling and Analysis	Python (including pandas, sklearn, Keras), SQL, JavaScript
Software & Tools	MS Office, LaTeX, Github, Ableton Live
Other Proficiencies	Science communication/teaching, fullstack webdev

CONFERENCES AND ACTIVITIES

Conferences
EAG London 2021
Impact Accelerator Workshop 2021
MIT Global Change Forum 2022
EAGx Boston 2022 & Tools
MIT Global Change Forum 2023
EAG Boston 2023

Selected Undergraduate Clubs
MIT Leadership Training Institute
I served as a mentor for LTI, a community service club at MIT, for all five years I was a student. I also served as social chair and as head project mentor.

Teaching
I taught several classes through the MIT ESP program, ranging from epidemiology to astrobiology. Through the MIT Momentum program, I also taught ML/AI to high school students in the summer of 2022.