

# ARTIFICIAL INTELLIGENCE FOR SOCIAL GOOD PROJECT

Students will work in groups of 4-5 on a socially impactful AI project of their choice. Our team of graduate student instructors from leading universities have diverse experiences and will provide mentorship for these projects.

## EXAMPLE PROJECT TRACKS

Students choose from 25+ projects across 10+ domains.

AI + \_\_\_\_\_

- |                     |                          |                    |                 |               |
|---------------------|--------------------------|--------------------|-----------------|---------------|
| HEALTHCARE          | FINANCE                  | ART                | GOVERNMENT      | SCIENCE       |
| PERSONAL ASSISTANTS | EDUCATION SUSTAINABILITY | ONLINE COMMUNITIES | ENVIRONMENT LAW | PUBLIC SAFETY |

## FEATURED PROJECTS



### DNA DETECTIVES FOR COVID-19

Using genomic data, create machine learning models to trace the origins of COVID-19 strains to help understand its spread.

DEVELOPED BY **Brianna Chrisman**  
Stanford PhD,  
Bioengineering



### CRIMINAL JUSTICE

Discover hidden racial biases in machine learning systems used for deciding who to send to jail. Explore definitions of fairness as you create and analyze improved models.

DEVELOPED BY **Daniela Ganelin**  
MIT MS,  
Computer Science



### AUTONOMOUS VEHICLES

Help self-driving cars “see” by implementing computer vision models, image manipulation techniques, and convolutional neural networks to identify street objects.

DEVELOPED BY **Peter Washington**  
Stanford PhD,  
Bioengineering





## DIGITAL PHENOTYPING FOR MENTAL HEALTH

With data from smartphone sensors, create models with Pandas, Matplotlib, and Scikit-learn to predict depression or relapse in mental illness.

DEVELOPED BY  
**Peter Washington**  
Stanford PhD,  
Bioengineering



## ALGORITHMIC TRADING

Apply machine learning to risk assessment and portfolio management. At the end of this project, you'll have a model that you can use inform real investments!

DEVELOPED BY  
**Aansh Shah**  
Brown MS,  
Computer Science



## FINDING EXOPLANETS

Train models with data from NASA's Kepler space telescope to detect and characterize exoplanets, potentially helping us discover alien life!

DEVELOPED BY  
**Kaylie Hausknecht**  
Harvard BS,  
Astrophysics



## SEMANTIC SEARCH

Implement semantic search over topics, documents, and people in response to queries for legal practice. You'll also explore applications in search engines.

DEVELOPED BY  
**Sydney Zink**  
Brown PhD,  
Computer Science



## DISASTER RELIEF

With natural language processing, classify types of resource needs (i.e., food, water) in Tweets. Your model could help first responders connect people in need with resources!

DEVELOPED BY  
**Brianna Chrisman**  
Stanford PhD,  
Bioengineering

