Deep Regression Techniques for Decoding Dark Matter with Strong Gravitational Lensing

Expanding the DeepLense functionality with deep regression models suitable for computer vision tasks will help further in tasks such as Decoding Dark Matter with strong gravitational lensing.

Prospective mentor(s)

- Michael Toomey (Brown University)
- Stephon Alexander (Brown University)
- Brandon Ames (University of Alabama)
- Sanaz Kiyadeh (University of Alabama)
- Yurii Halychanskyi(University of Washington)
- Saranga Mahanta (Institut Polytechnique de Paris)
- Karthik Sachdev (RWTH Aachen)

Why are you the right person to work on this project?

I think I am the right person for this because I am very interested to work on the project and also I have the capabilities needed to complete it.

What is your experience with open-source code, if any? Please include links to any open-source projects or contributions (if available).

I don't have any experience with open-source projects yet, but I am looking to start contributing to some projects.

Please describe your relevant technical background and experience.

During my Bachelors degree I took part in some courses which teach about different parts of Data Science such as machine learning, data mining. In those lectures I build models using linear regression, logistic regression, etc.

What are the challenges you expect when working on your project? How will you mitigate them?

The challenge I see when working on this project is adapting to working on an open-source project, but I think that it won't be a problem since I plan to fully commit myself to this project.