

# Adapting Software, Hardware, and Programming Support in a Virtual Environment for the Boulder Solar Alliance Research Experience for Undergraduates Program

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# Who I am...



# Summer 2021 Coordination Team



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# Remote, again...



# Challenge: More Coding-Intensive Projects



Boot Camp Week: more programming tutorials in IDL and Python

Weekly: programming help sessions in Python, IDL, and MATLAB

Anytime: Slack channels for programming support

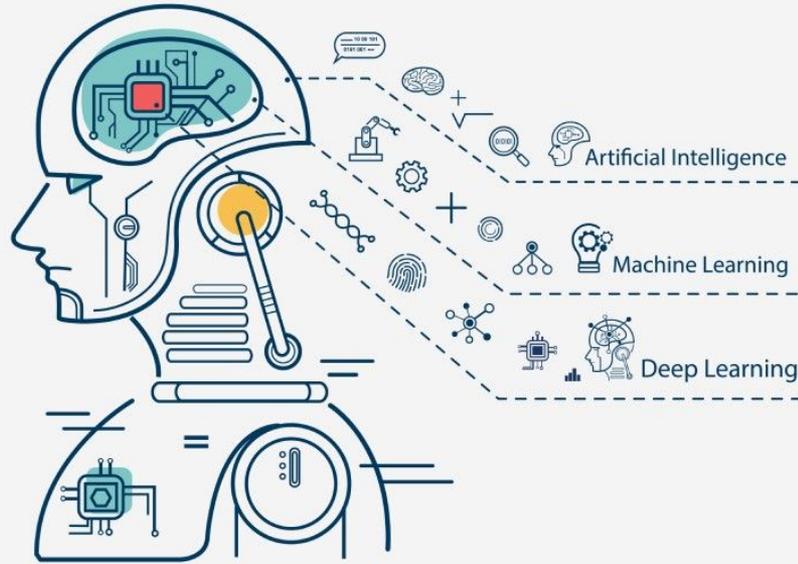


# Challenge: Unequal Hardware Resources



Students received a technology stipend to help them upgrade their computer and internet resources.

# Challenge: More Data Science Projects



Boot Camp Week: introductory ML lecture and tutorial

Weekly: ML sub-group meeting to provide support and resources for students involved in ML projects

Anytime: Slack channel for machine learning support



# Challenge: Virtual Poster Session



To make the final poster presentation more engaging in a virtual environment, we used Gather Town, an online service where participants create avatars that can interact with the virtual environment.



# Takeaways for the Future

- Increased coding and machine learning tutorials and support
  - Slack is a popular tool for asking and answering questions
- Try to address inequities in access to hardware where possible
  - Even in-person this could be relevant
- Gather Town is more interesting than Zoom breakout rooms
- Sub-topic groups are an effective mentoring strategy

