Final Project Proposal

Definitions

Team name: ***Starter***

Team members: ***Enmin Zhou***
Note: Once one person uploads the report to Gradescope, please add all other team members to the submission within the Gradescope interface (top right on your submission).

If you need to find team members, please use the 'Search for Teammates!' top-level post on Piazza—pitch an idea!

Project

Please write a one-two page document including:

- What are the skills of the team members? Conduct a skill assessment!
- What is your project idea?
- What data will you use?
- What software/hardware will you use?
- Who will do what?
- How will you know whether you have made progress? What will you measure?
- What technical problems do you foresee or have?
-
- What is the socio-historical context that this project lives in? (2-3 sentences)
- Who are the stakeholders for this project? (3-4 sentences)
- What are the benefits of a technology such as this? (2-3 sentences)
- How might a bad actor misuse this technology and who would it harm? (2-3 sentences)
-
- Is there anything that we can do to help? E.G., resources, equipment.

My answers for above questions

- Python, SQL, C++, Unity, knowlegde about deep learning and machine learning.
- I decide to implement a starter project (CaSPR: Learning Canonical Spatiotemporal Point Cloud Representations) from Professor Srinath as my final project.
- Data is from this website. It is the generated hand dataset also used by Professor Srinath in his paper.
- VS code, Google Cloud Platform, Google Colab.
- I will be responsible for all implementions in this project.
- I will follow steps from the paper and measure my outputs by comparing it with paper.
- I may have problems understanding some of the ideas in the paper and need experiments to verify my understandings.
- This project mainly deals with 3d object estimation and has little to do with human bodies.
- Professor Srianth Sridhar.
- A technology like this can help to recognize 3d hand positions and shapes which will benefit VR, AR and metaverse in the future. Maybe remote medical surgery is possible if accurate enough!
- A bad actor may misuse this technology monitor people's hands when they are typing or operating so that information and privacy are leaked.
- I will probably need some instructions from Srinath.

Feel free to use these as paragraph headings, and also please include any media, references, etc.