

Project idea brainstorm:

AI

Problem people have:

AI plagiarism

Too slow

Over explain

Timing events with friends

Timing meetings with co-workers

Buying things online

Buying clothes online without knowing size (different standards in different countries)

Finding new hobbies (tinker for hobbies?)

Best sitting position

Stalker / sexual harassment detection -> camera computer vision

Ideas:

Website chatbot -> on personal website?

AI that allows you to explore hobbies

AI that determines best sitting position from picture of desk

- Inputs phone picture of desk
- 3d model of human
 - Red parts to show strained muscles
- 3d model of desk
- Instructions on how to move body to best suit long term sitting

Ergonomics AI

1. Phone take picture (android implantation?)
 - a. Open CV
 - b. Use YOLO to detect human and desk
 - c. Segmentation to divide human and desk and background
2. Pose generation:
 - a. PoseNet / OpenPose to detect post
 - b. Outputs json file (?)
3. AI prediction of strained parts
 - a. ???
 - b. Open source model
 - i. https://github.com/BehnooshParsa/HumanActionRecognition_with_ErgonomicRisk
4. Visualization
 - a. Matplotlib human heat map
 - i. Each string in the AI output corresponds to body part
 - ii. Also shows percentage of strain

iii. Matplotlib heat map generation

5. AI recommendations

- a. Insert at risk body parts
- b. Prompt eng ideal ergonomic positions
- c. text output recommendations

6. UI

- a. HTML + CSS + JS front end
- b. Flask backend
- c.