

Sit-Up!

The personalized **AI** posture practitioner



10 pounds
(4.5 kg)

2 inch



PROBLEM INTRODUCTION

How bad posture can affect you ?

Main Health Effects

- Back, Neck, and Shoulder Pain
- Poor Circulation
- Increased Stress
- Fatigue and Low productivity

80%

of adults are suffering back pain caused by bad posture

86bil.

of low-back pain cost in US each year

\$30,000

is spent on posture-related injuries per patient

67% posture-related injuries

33% Other work injures

CURRENT SOLUTIONS FOR POSTURE CORRECTION

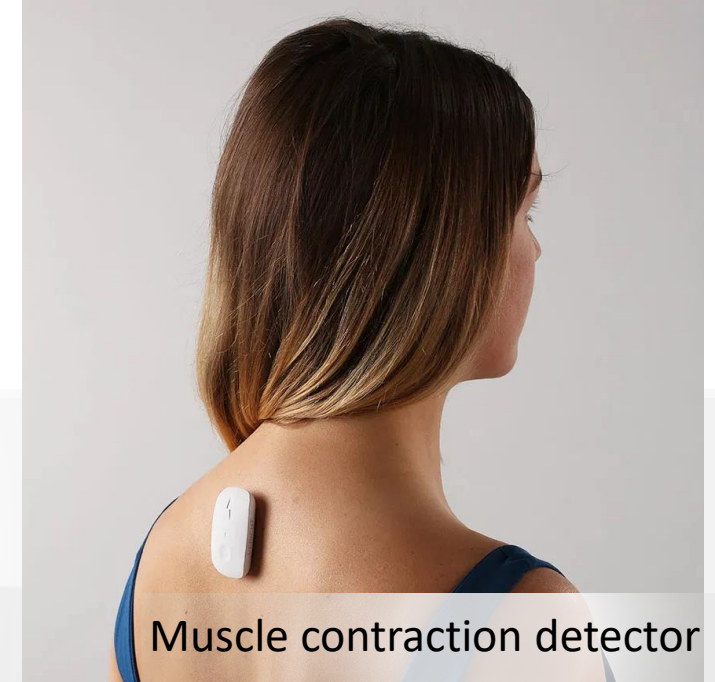
The current products are still not effective to fully solve posture problems



Posture brace



Ergonomics furniture

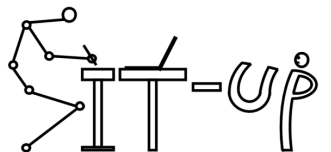


Muscle contraction detector



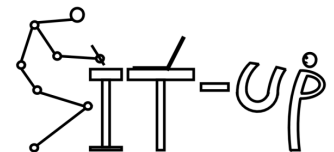
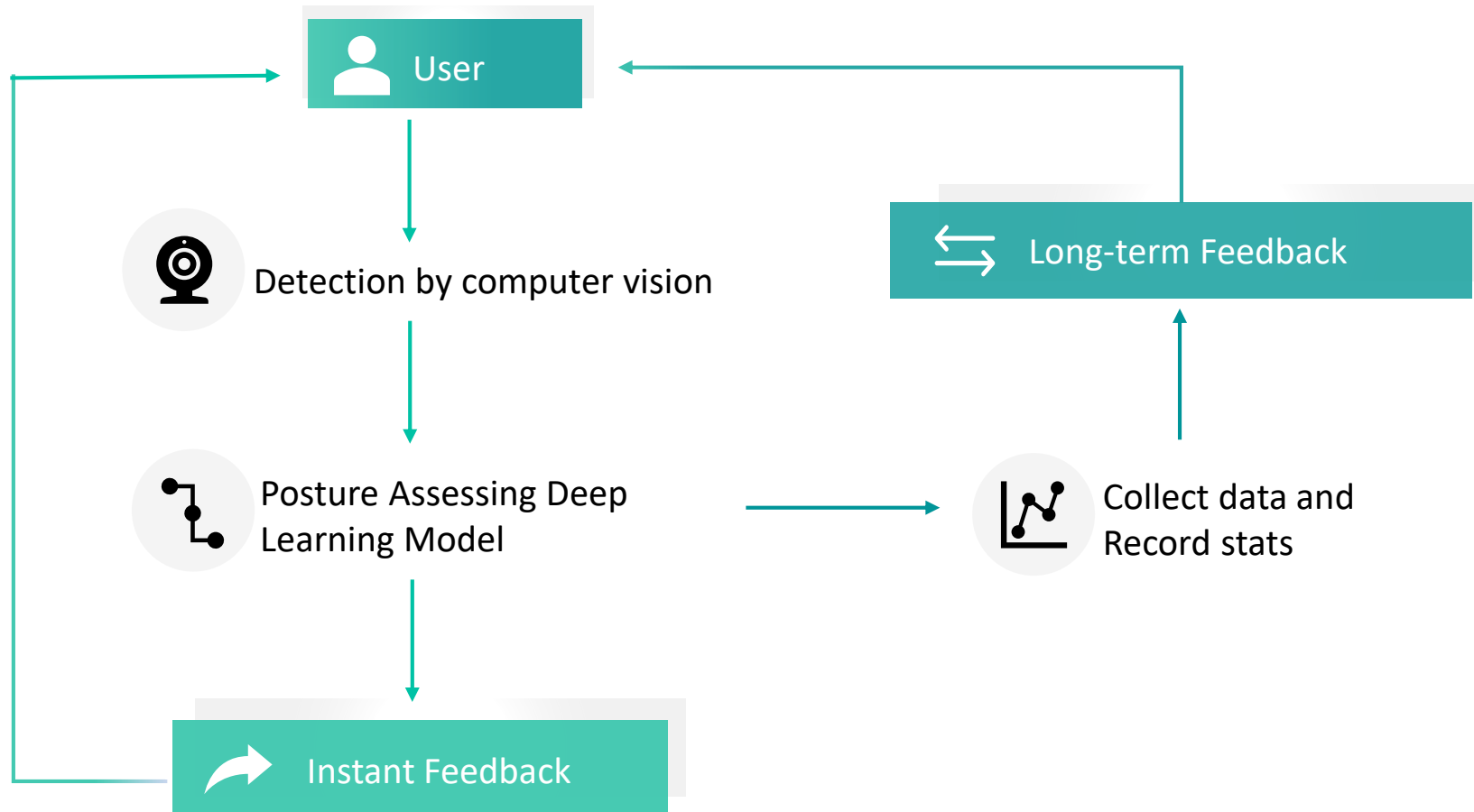
Sit-Up!

The personalized
AI posture practitioner



THE PROCESS OF USE

Sit-Up! – How it works?



PRODUCT ADVANTAGE

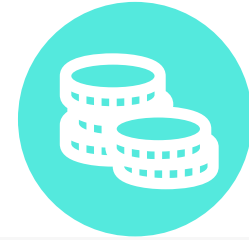
Sit-Up! - The AI-powered device achieves flexibility, cost-effectiveness and high accuracy



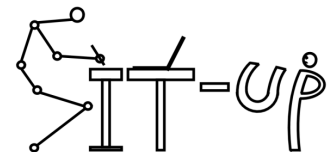
Simple
&
Flexible



Robust
&
Accurate

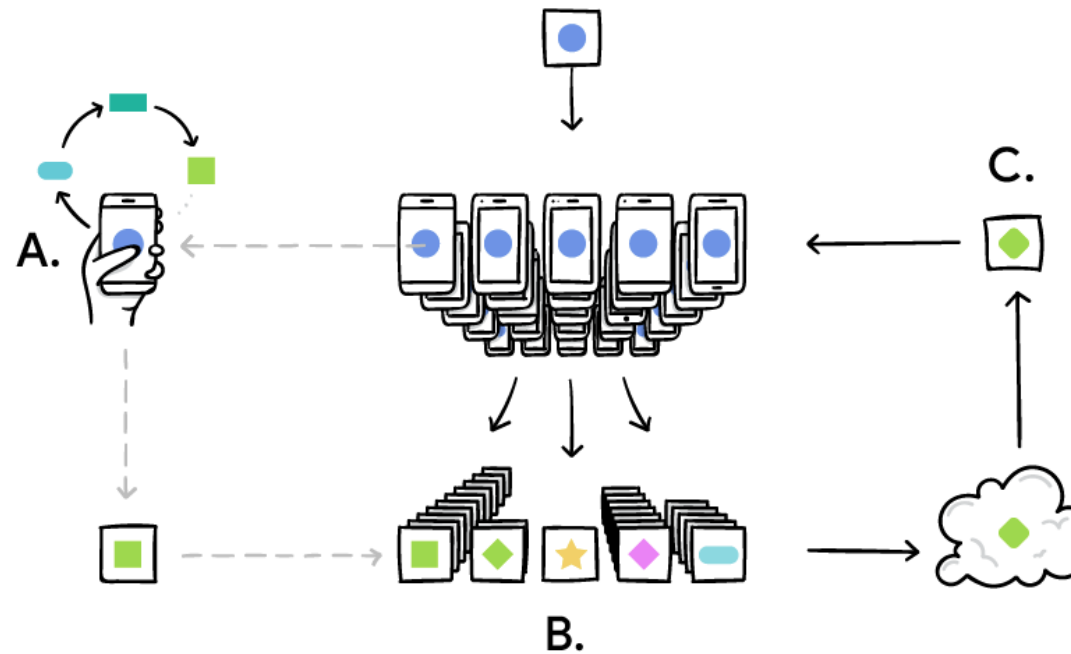


Cost-effective



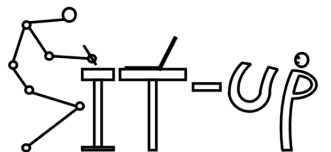
COUNTERING SURVEILLANCE CRISIS

Federal Learning ensures Security and Privacy



DEMO

Sit-Up! – Presenting

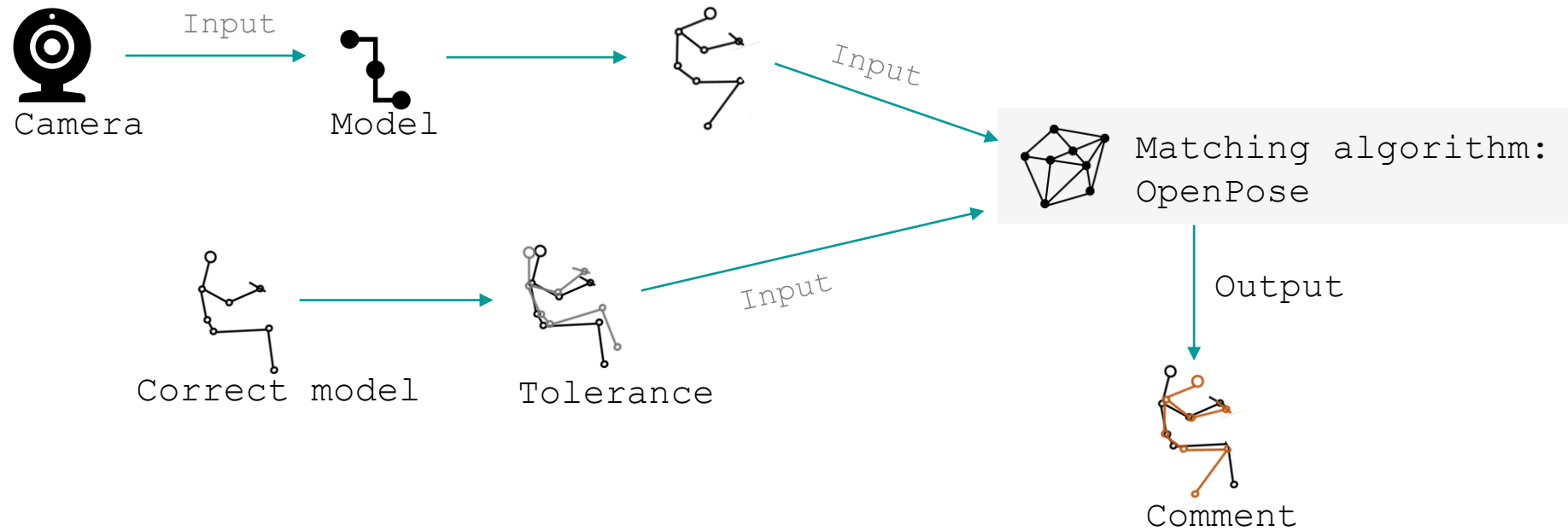


Q&A



APPENDIX

- Backend Process





REFERENCE

Presentation

- <https://www.health24.com/Medical/Backache/Good-posture/Slouching-a-real-back-breaker-20120721>
- <https://www.mensjournal.com/health-fitness/4-reasons-stop-slouching/>
- <https://www.thegoodbody.com/back-pain-statistics/>
- <https://www.acatoday.org/Patients/What-is-Chiropractic/Back-Pain-Facts-and-Statistics>
- <https://www.therooststand.com/blogs/the-roost-blog/12381213-the-cost-of-poor-posture>
- <https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions/2020/ai-chips.html>
- <https://www.techinsights.com/blog/apple-iphone-5s-teardown>
- <https://ai.googleblog.com/2017/04/federated-learning-collaborative.html>
- <https://towardsdatascience.com/federated-learning-and-privacy-preserving-ai-fcddb426c5>

Backend

- https://cmu-perceptual-computing-lab.github.io/foot_keypoint_dataset/
- <https://arxiv.org/abs/1812.08008>
- <https://github.com/CMU-Perceptual-Computing-Lab/openpose>