Monitoring those living alone to prevent solitary death

Using web cameras to monitor posture and movement, and alert responders to any abnormalities

Critical Thinking Crew achieved this using
• SAS® Viya® in Microsoft Azure • Python • YOLO

SAS Hackathon 2023 • Technology Winner in Computer Vision • Healthcare Track

Challenge

More than 25,000 people die alone in Japan each year.

- It can take more than two weeks for them to be found.
- 40% of those dying alone are under retirement age.
- This is very much not an issue that only affects older people.

Innovation

This solution is a self-monitoring smartphone app for people living alone.

Critical Thinking Crew:

- Used data from smartphone videos created by app users.
- Created models that use visual recognition software to detect posture and predict vital signs.
- Built an app drawing on camera data to monitor users and alert friends or family to any potential problems.

Impact

This app could allow people with serious illnesses who live alone to feel safer, knowing that their health is being monitored.

- It could be used by anyone living alone, of whatever age.
- It is likely to be particularly helpful for younger people with serious conditions, because they will be more likely to use a smartphone app.
- The app has wide applicability around the world for anyone who has a smartphone and other camera technology in their home.

> "People need an easy way to protect themselves."
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> Keisuko Fukunaga • Team lead • Critical Thinking Crew