# AI FOR HEALTHCARE SUPPORT FOR ELDERLY PEOPLE

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## PROBLEM DEFINITION

The main concern we face is the lack of support in healthcare for our community. As people get older, there is a growing need for personalized healthcare services tailored to their needs. Many elderly individuals encounter difficulties related to chronic illnesses, limited mobility, cognitive decline, and the need for continuous medical attention. Existing healthcare systems often struggle to deliver effective care that addresses the needs of the elderly population. Due to the challenges within the system, many elderly individuals are facing misdiagnosis, resulting in decreased quality of life, increased healthcare expenses, and overcrowded medical facilities. Additionally, several healthcare sectors are experiencing widespread shortages of staff, medicines, and inefficient services. By implementing AI-based healthcare,

Source: https://cdn.geekwire.com/wp-content/uploads/2019/02/190210-ai.jpg

## AI SOLUTION

Our AI solution that we propose solves the problem by creating an integrated healthcare system tailored to the needs of the elderly by using wearable devices such as smart watches. AI-based analytics and remote sensing technology (robots, drones, cameras, voice assistants, biometrics, etc.), with sensors, actuators, software, and cloud connectivity, to collect, analyze, and provide personalized healthcare in real time. Equipped with artificial intelligence algorithms, these devices will monitor vital functions and movement patterns, detect abnormalities, and alert nurses or experts if necessary

## OBJECTIVES

- Enhance Healthcare Quality
- Increase Efficiency
- Promote Aging in Place
- Health Outcomes
- Resource Efficiency
- Patient Satisfaction

## MACHINE LEARNING

Supervised Learning
Dataset
Random Forest Classifier
Evaluation
Classification Algorithms

## DEEP LEARNING

- Key techniques and applications
- Recurrent Neural Networks
- Transformer Models for (NLP)
- Generative Adversarial Networks
- Transfer Learning
- Autoencoders for Feature Extraction
- Deep Reinforcement Learning


Source: https://media.nature.com/lw800/magazine-assets/d41586-021-00451-y/d41586-021-00451-y_18880456.jpg

## DATA & MODEL

**Data Articulation**
**Relevant Data**
**Well-defined Plan**
**Evaluation Metrics**

## REFERENCES


Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, Second Edition, Prentice-Hall, 2003 -- the leading introductory textbook in the field.

Peter Jackson, Introduction to Expert Systems, Third Edition, Addison-Wesley, 1998


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