Title: AI Solutions for Cardiovascular Health in Łódź

As of 2025, Łódź has a population of around 655,300, out of which approximately 28% of its residents are aged 60 and above, the highest percentage of older individuals in Poland, according to the Polish Statistics Agency (*GUS, 2022*). This demographic is especially vulnerable to cardiovascular diseases which accounted for 36% of all deaths in Poland in 2022 (*Statistics Poland, 2023*). To solve such a national and global problem, many automated and non-automated solutions exist that consider factors such as heart rate, age, and smoking. However, despite the compelling research and results on cardiovascular diseases, even with the use of cutting-edge technologies like AI, there has not been a globally applicable automated solution for every developed or developing country. In my presentation, I will discuss the reasons why such a global solution is hard to implement. I will also present how my local approach, with the guidance of my supervisor Dr. Krzysztof Grudzień, which uses a dataset obtained from a study involving over 2,000 users in Łódź (*Wróbel-Lachowska et al, 2023*) that examined cardiovascular disease of the elderly population with a telemonitoring service, could be a game-changer and how we aim to use an AI proxy for patients in this era of a clear shortage of doctors in the EU.

Keywords: Cardiovascular Diseases • Healthcare in Łódź • Artificial Intelligence (AI)

Topic*: AI in healthcare and public health*

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