Join Our Team – Predicting injuries among combat soldiers

Predicting injuries among combat soldiers is critical for a variety of reasons [1]. First and foremost, it protects soldiers' health and safety while reducing the psychological and physical effects of combat. Second, injury prediction contributes to mission success by facilitating improved resource allocation and planning, which sustains operational effectiveness and unit readiness. It also helps with cost-cutting, effective resource management, and long-term health issues, which benefits society and the military by lowering healthcare costs and the proportion of disabled veterans. In the end, this proactive strategy promotes soldier morale while simultaneously ensuring the success and continuity of military operations.

We are looking for students with some experience writing DL algorithms for an influential project that is a joint venture between the physical therapy department of Haifa University and VISTA lab. funded by the IDF on Wearables and Injuries in Combat Soldiers.

The study seeks to forecast injuries and identify the critical factors influencing soldier injuries. Our goal is to achieve this by utilizing data collected from wearables that Golani troops wore for a duration of six months.

In this project, **you will analyze and create machine learning models** that can identify **critical elements influencing soldiers' well-being and forecasting models that can anticipate injuries.**

Contact Barak Gahtan if you are driven to work on a project involving real and big data to improve combat soldiers' readiness.

Requirements:

A basic course in Deep Learning \ ML and a passion for effective AI.

[1] Papadakis N, Havenetidis K, Papadopoulos D, et al

Employing body-fixed sensors and machine learning to predict physical activity in military personnel BMJ Mil Health 2023; 169: 152-156.