

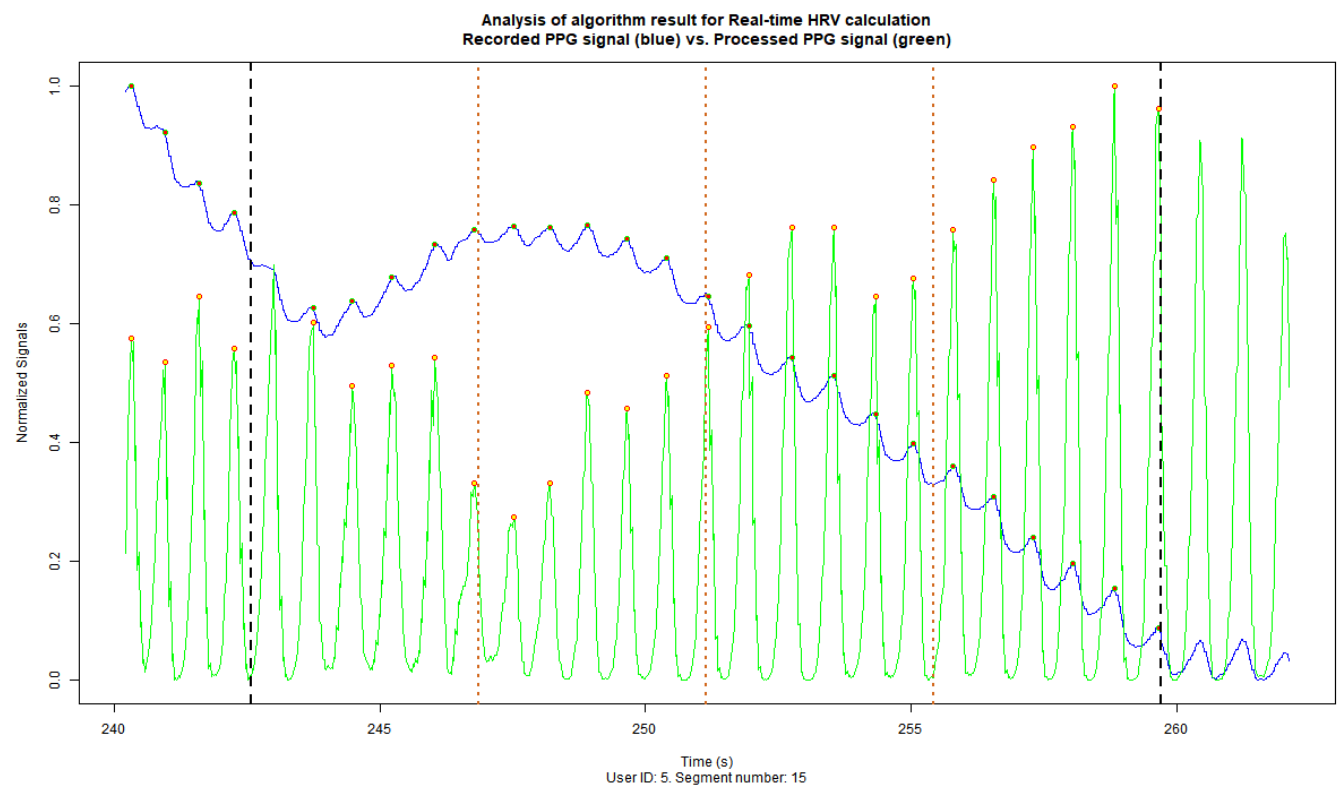
Enhancing Interactive Immersive Applications with Real-Time Data Science

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INTRODUCTION

We explore how machine learning can confer intelligence to extended reality (XR) through the personalization of virtual reality interactions to specific user profiles. There are three main pillars in our research:



1. TIME-SERIES STREAMING

Physiological, kinematic and behavioral time-series collected from body sensors, VR headsets and usage activity of the application.

2. REAL-TIME DATA SCIENCE

Time-series based methods are used to create models of each specific user using the continuous analysis of available data streams.

3. VIRTUAL REALITY SCENES

Each user's model is used to adapt the digital environment with interactions that optimize learning in medical rehabilitation, professional training, or entertainment.

PRELIMINARY RESULTS

INTRODUCTION

PROBLEM

There is a need of machine learning models that can be trained in very short training times so that Lack of understanding on how

RESEARCH QUESTION

How can immersive applications in virtual reality provide more personalized interactions using real-time data science?

METHODS

MACHINE LEARNING

How can immersive applications in virtual reality provide more personalized interactions using real-time data science?

VIRTUAL REALITY

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