



TECNOLOGIAS DIGITAIS PARA TÉCNICAS INOVADORAS DE REABILITAÇÃO

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Esquizofrenia

- Doença psiquiátrica que afeta cerca de 20M de pessoas
- Caracteriza-se por “perda de contacto com a realidade”
- Alterações de pensamento, percepção afeto e comportamento
- Nível de funcionamento baixo
 - Trabalho
 - Relações interpessoais
 - Autocuidado



Diagnóstico

Sintomas

Positivos

Delírio(s)
Alucinações
Perturbações formais do pensamento
Comportamento desorganizado

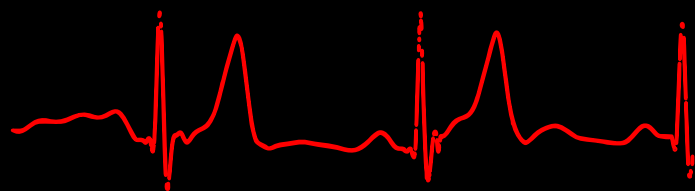
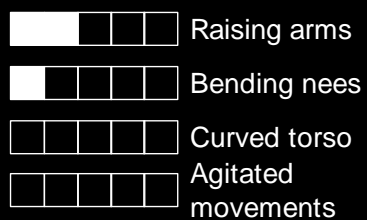
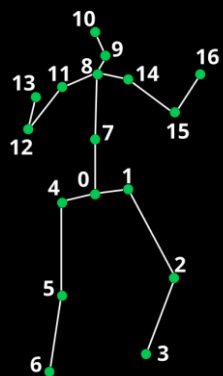
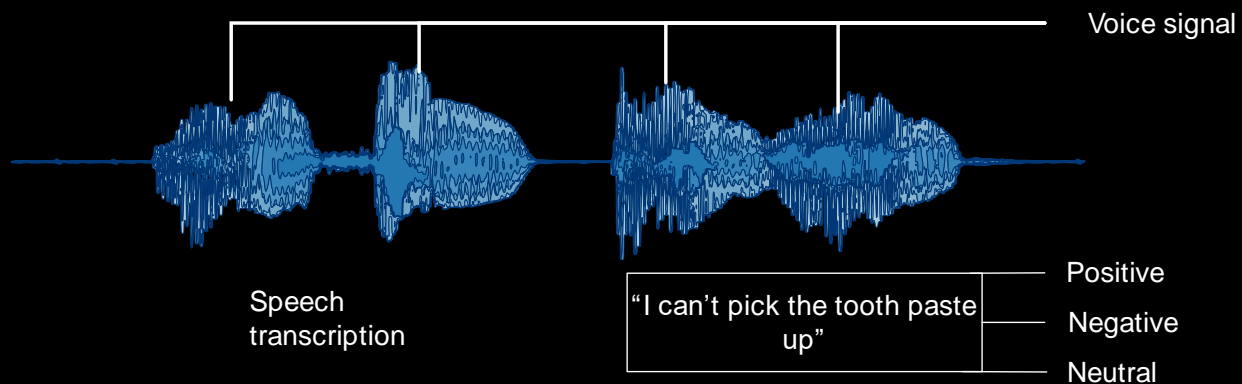
Negativos

Alogia
Isolamento e empobrecimento social
Abulia e apatia
Aplanamento afectivo
Lentificação psicomotora

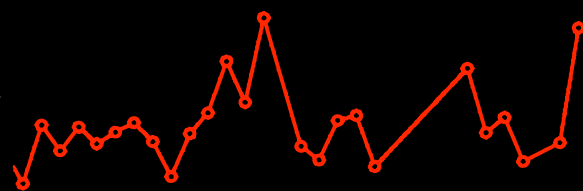
Cognitivos

Atenção
Memória
Quociente intelectual
Linguagem
Funções executivas

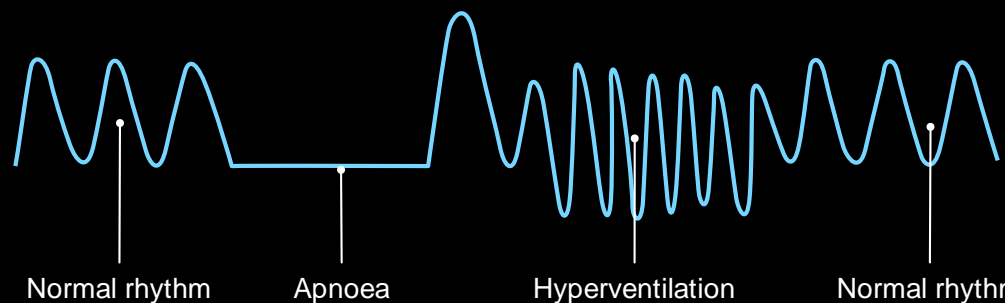
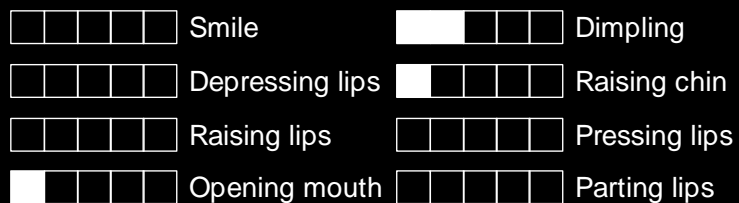
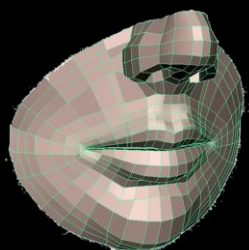




Heart rate:
76 beats per
minute



Heart rate
variation



Breathing
rhythm

Reconhecimento da Ação Humana



Boxing



Handclapping



Hand waving



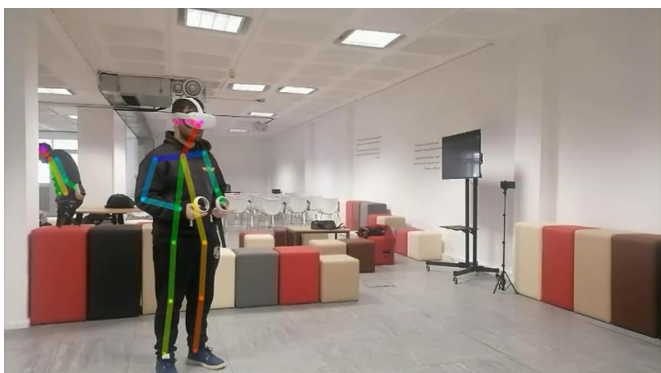
Jogging



Running

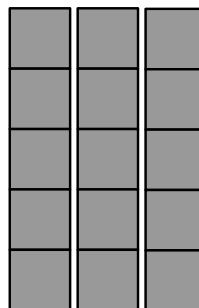


Walking



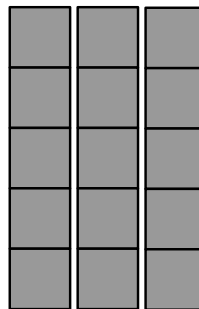
Skeleton tracking

Angles



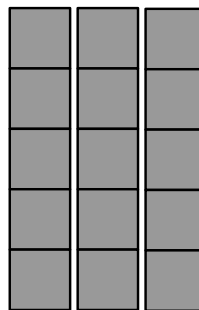
Skeleton tracking

Angles



Skeleton tracking

Angles

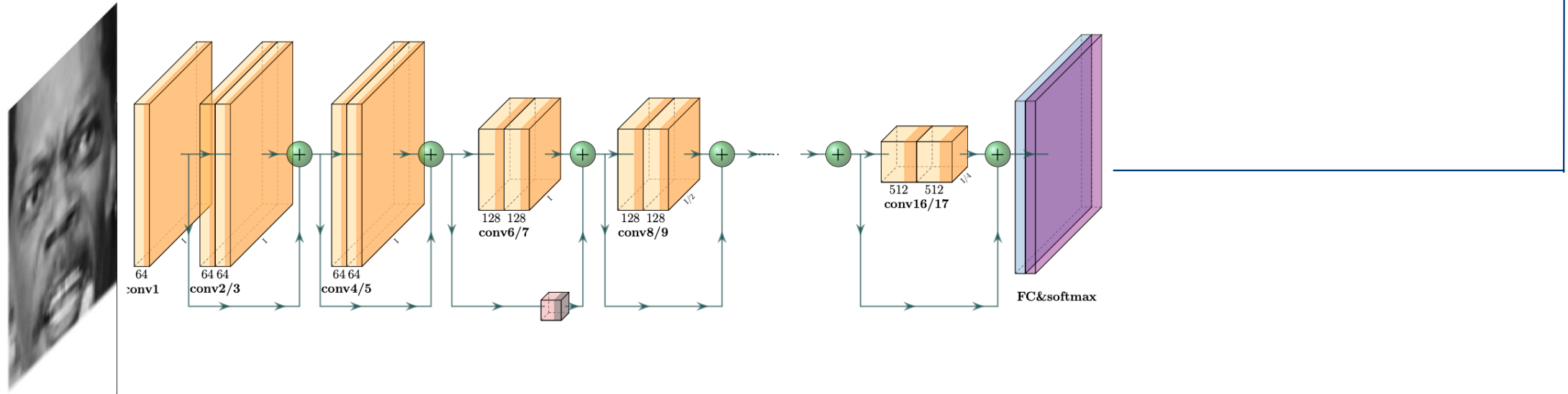
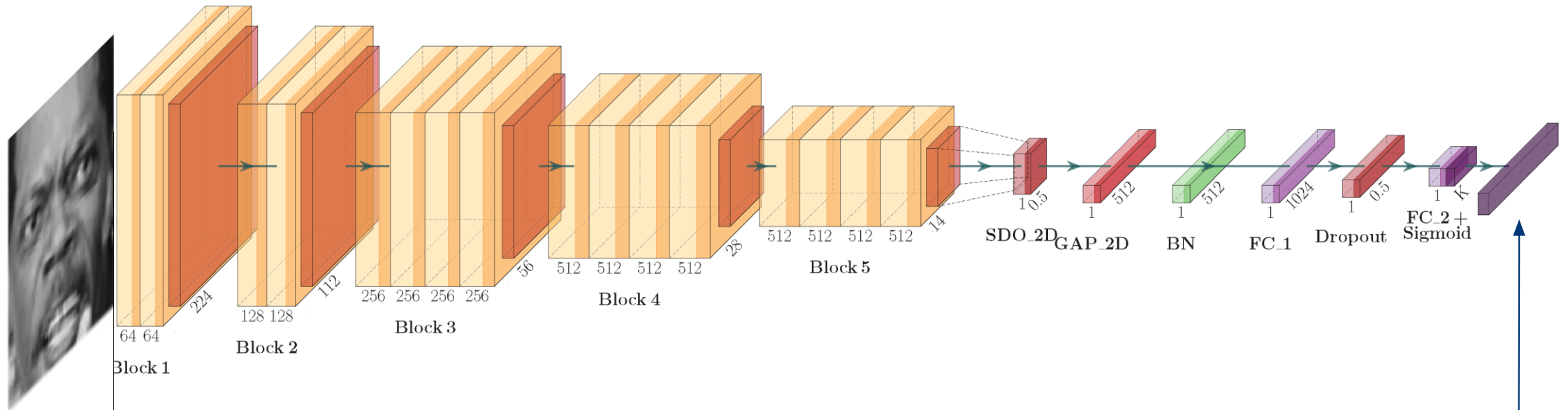


Sequence model

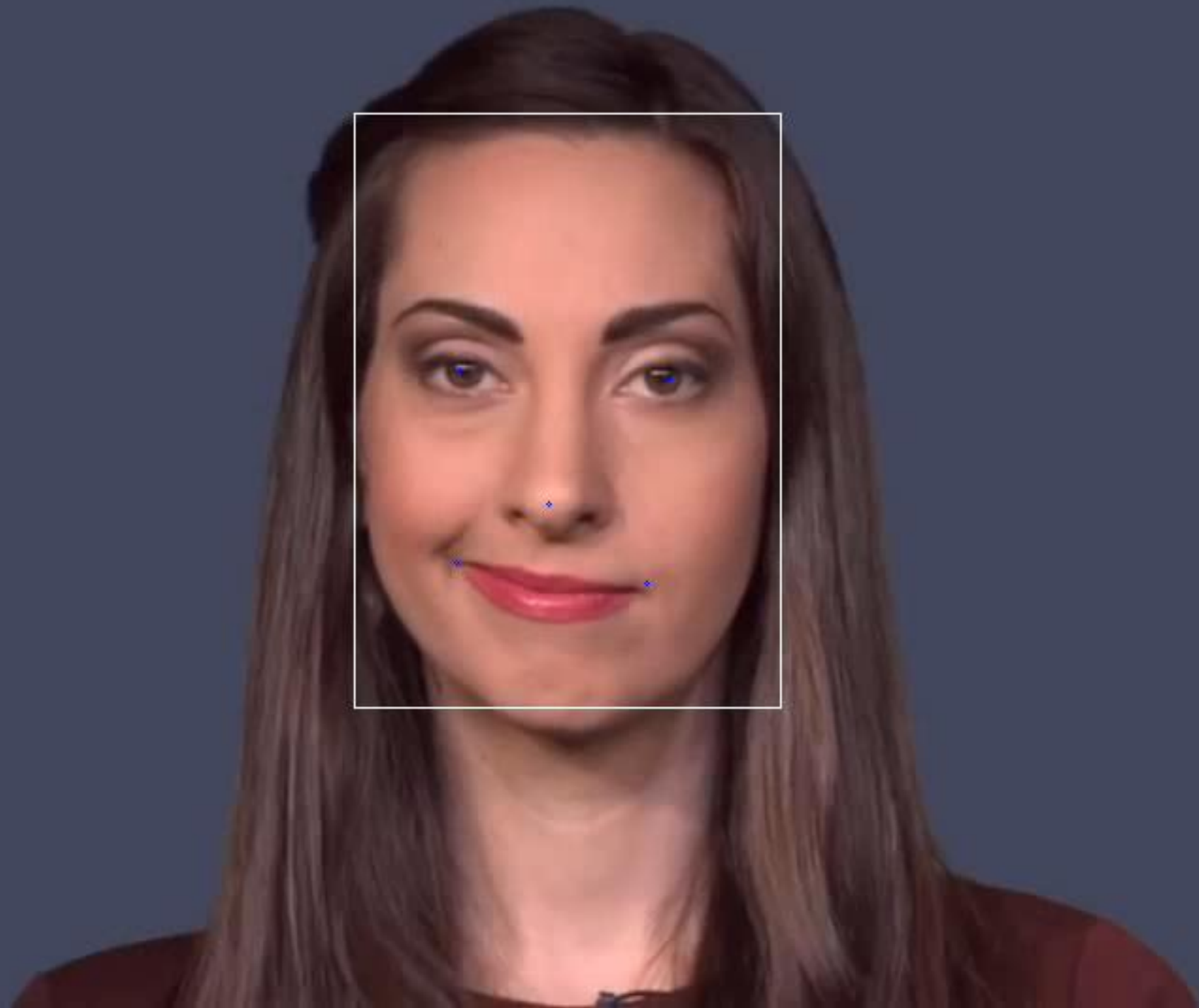
- Open door
- Open window
- Fill cup
- Water plants
- Stow objects
- Pick up garbage

Reconhecimento da Expressão Facial



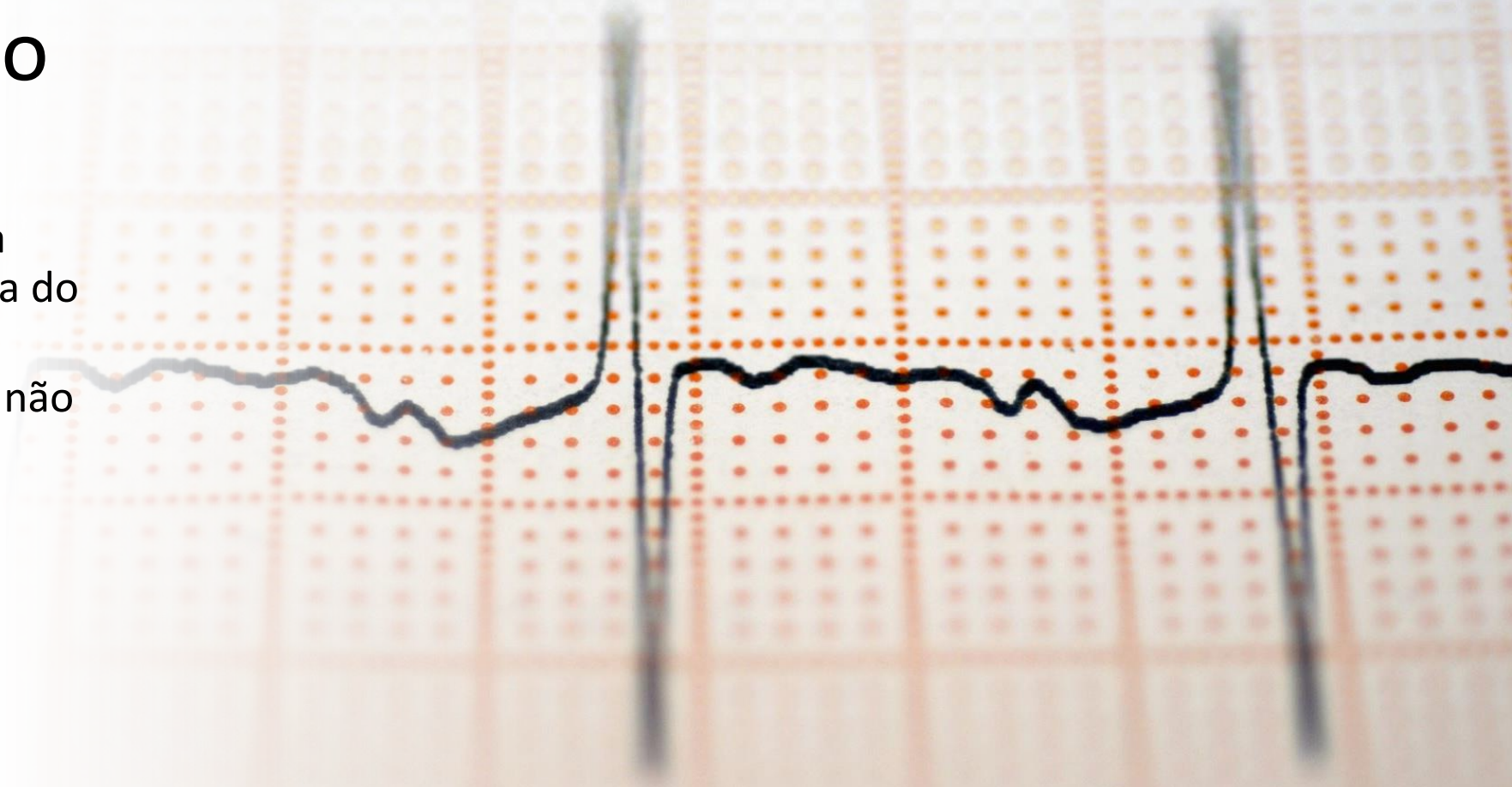


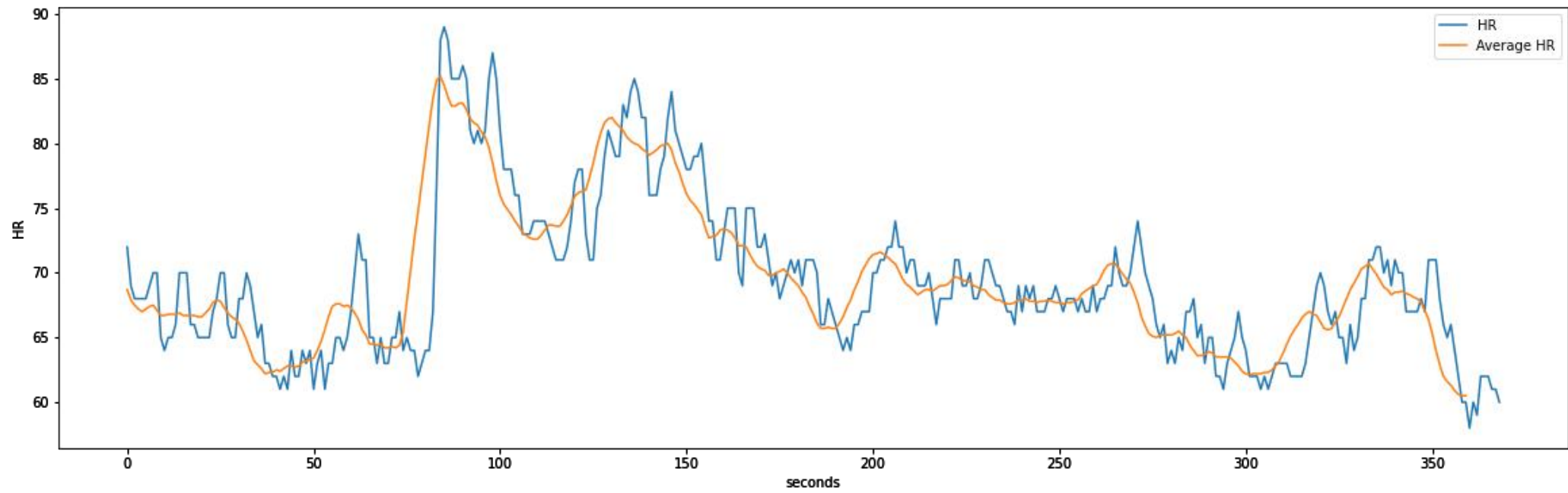
happy

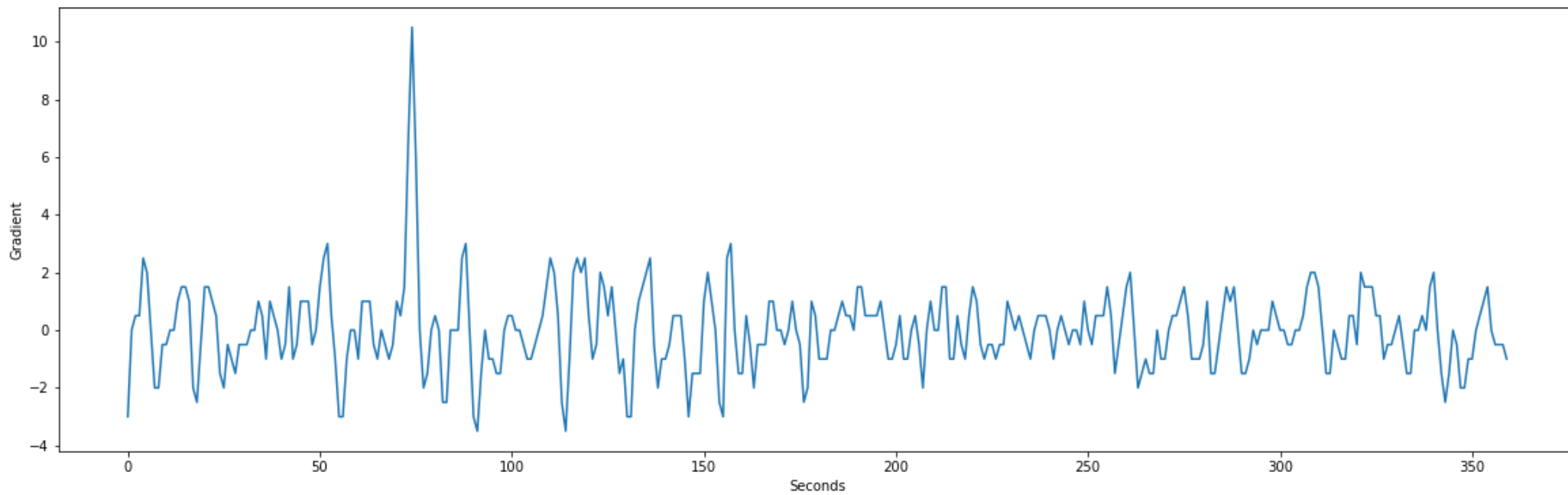
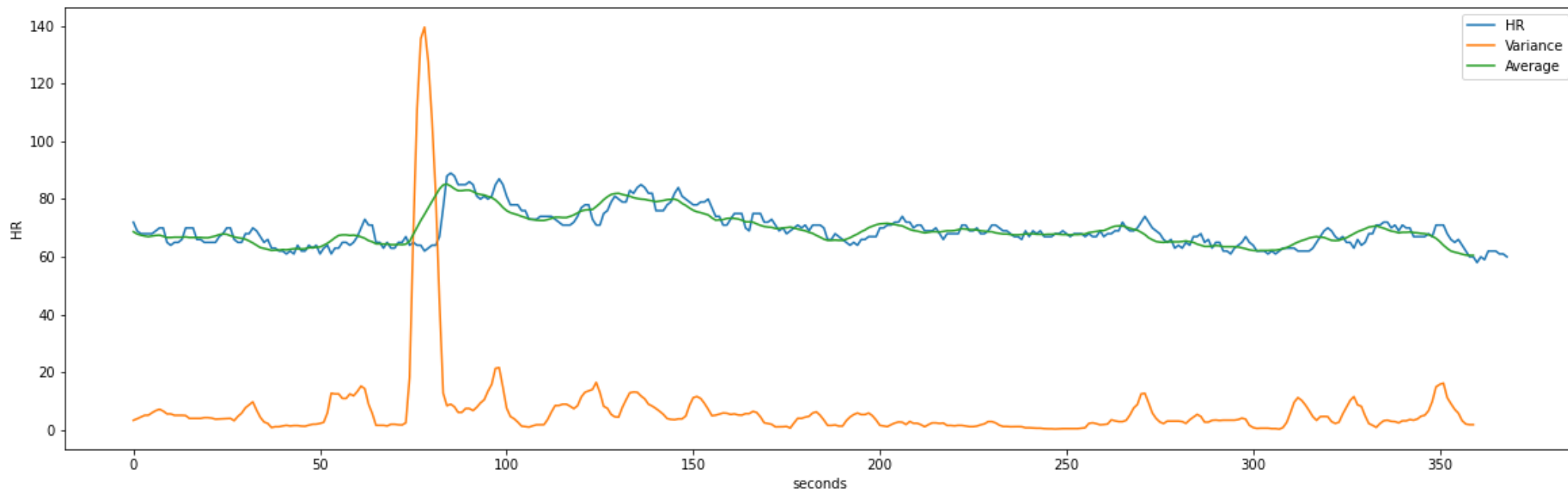


Monitorização do Ritmo Cardíaco

- Monitorizar a frequência cardíaca para a inferência do stress
- Utilização de dispositivo não intrusivo
 - Smartband
 - Relógio
 - ...



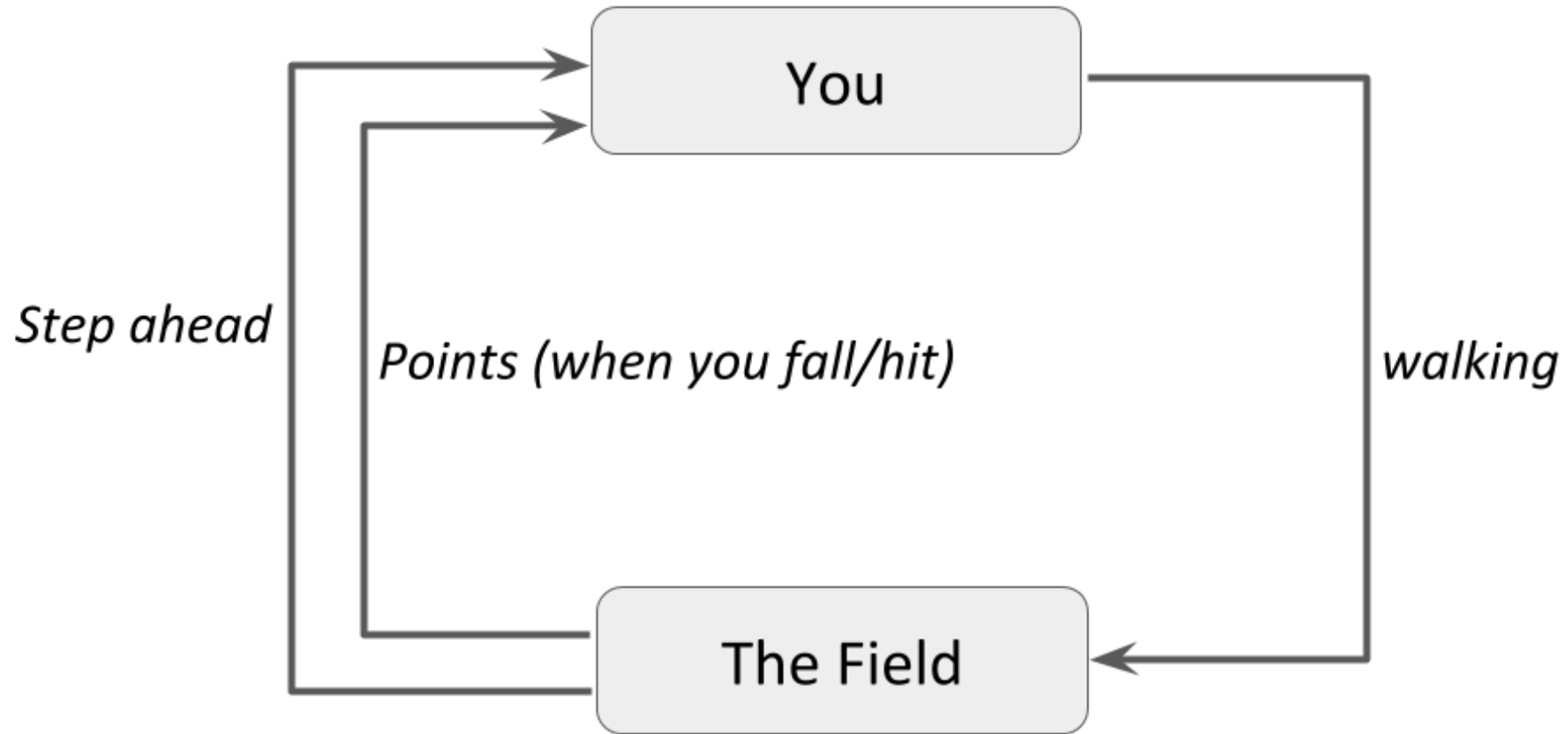


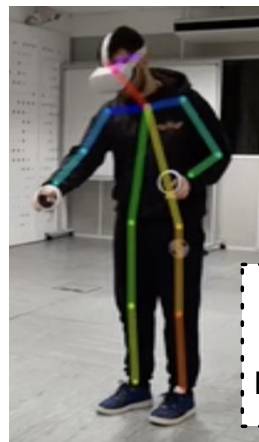


Aprendizagem por reforço

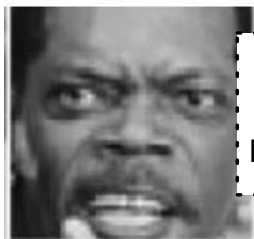
"Agente aprende a interagir com o ambiente para obter uma recompensa"

Intuição

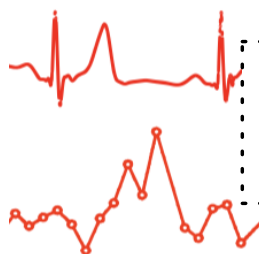




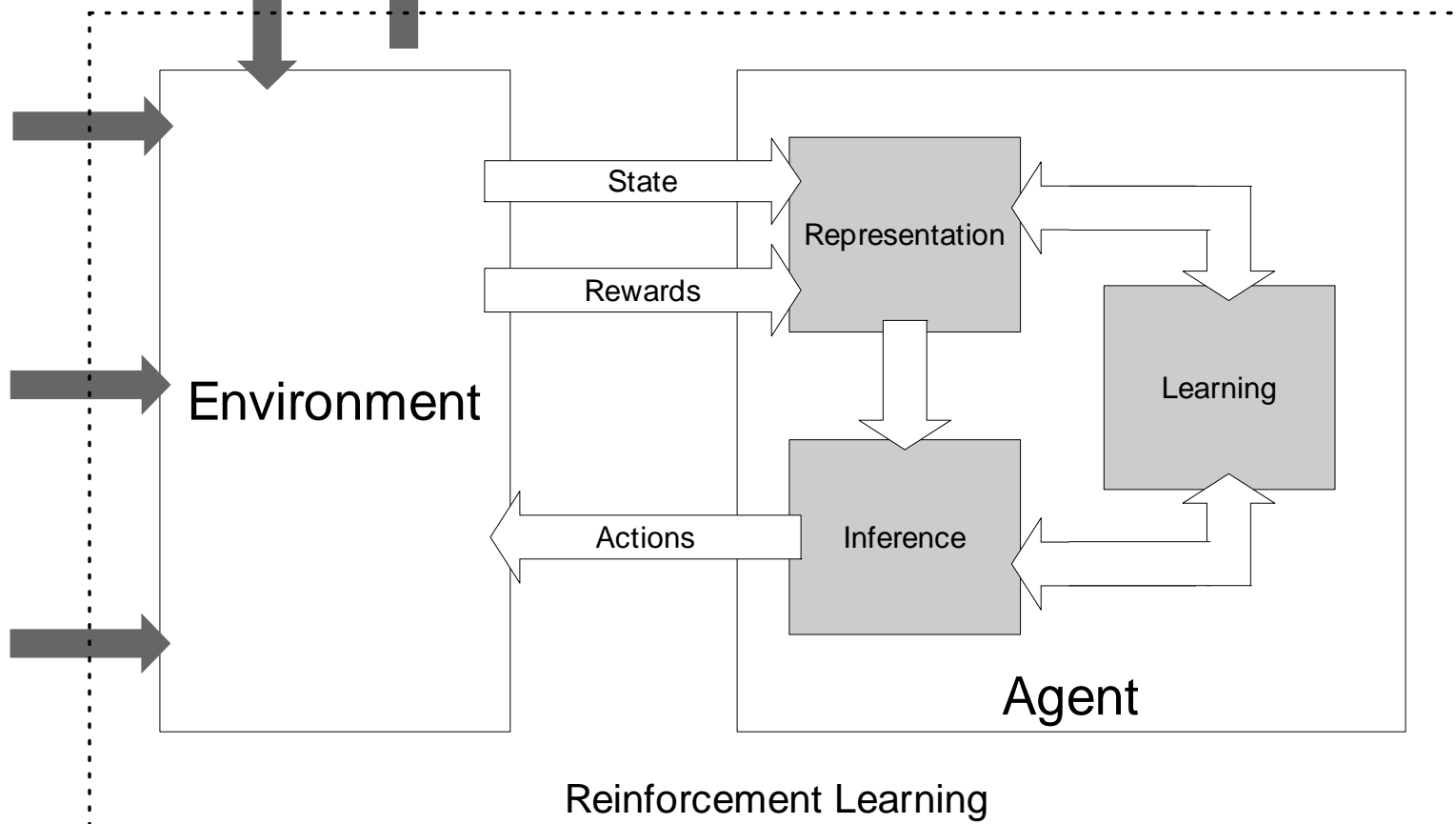
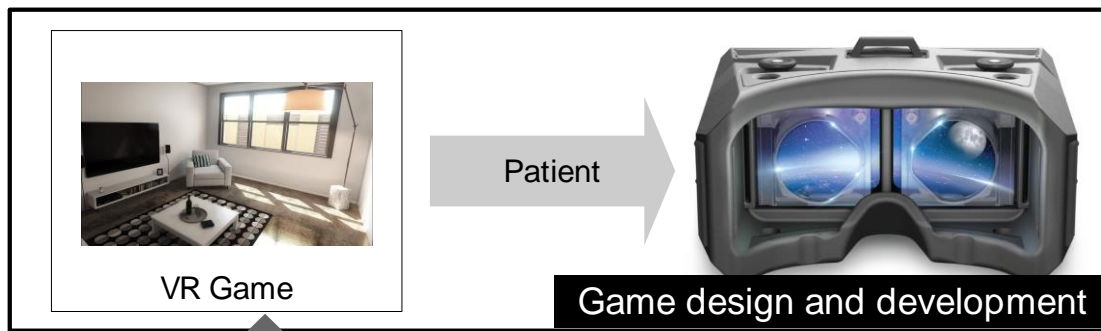
Human Action Recognition



Facial Expression Recognition



Heart Rate Monitoring





Obrigado!

