

What I've Made and Why

JimBot is an embodied conversational agent (virtual human) using a chatbot backend. JimBot acts as a Personal Trainer providing various workouts on a TV screen inside the application.

Personal trainers are usually pre-occupied and are expensive.

Existing solutions were only text-based PT chatbots and didn't incorporate the virtual human element, and was no way to speak to them. Many key features were locked behind paywalls.

How I Made JimBot

Chatbot Component

- Google DialogFlow Framework

Virtual Human Component

- Adobe Fuse & Mixamo

Combining these into a Unity Project (C#)

Key Features

Text and Speech Input and Output

- Speech input takes longer to process

Real time Natural Language Processing

Different Workouts

- Equipment preference
- Body area preference

Exercise details

- Demonstrations/Text description/Muscles affected diagram

Evaluation

Product Limitations

- Dependant on internet connection
- Only works on Laptops at the moment
- Talking to JimBot depends on microphone quality
- Not as knowledgeable as human Personal Trainers

Knowledge Gained

- Behavioural Driven Development (write tests before code).
- DialogFlow chatbot creation
- Animating JimBot inside Unity
- Conducting User Acceptance Testing – positive feedback.

What Features Weren't Included?

These features were all *Could haves* from the MoSCoW Analysis in the Final Report, so not vital to this iteration.

User Profiles

Nutritional Advice

Cross Platform (i.e. Mobiles and Tablets)