

# **Client: Fatigue M8**

# **Project: Recruitment Management System feasibility & risk analysis**

# TOOLS & TECHNOLOGIES









- AWS
- React
- Visual Studio
- Justinmind

#### **BACKGROUND**

FatigueM8 was born in the National's Capital in 2018 as an answer to the epidemic of driver fatigue. The project utilises Artificial Intelligence and Machine Learning to collect ECG data that detects changed heart rates and thus indicates altered fatigue in drivers for improved safety on the roads.

At the core of the solution is the ability to use the drivers' own biometrics to monitor their fatigue levels, and once baselined the ability to predict fatigue levels across a 1-to-2-hour time horizon. This data can also be used to identify individual risk factors including stroke and various heart conditions.

Our KJR Consultants have delivered a range of technical undertakings from the project's conception to its most recent updates. Including front-end and back-end development, design and assurance of a user-portal that collects driver data to be analysed.

### **RE-DEVELOPMENT OF USER PORTAL**

#### Research

A user portal was required to provide a seamless and intuitive touchpoint for data presentation. The team conducted extensive research into user-demographic technology behaviours to ensure the portal's dashboard was suitable for users in the heavy vehicle industry. A dashboard utilising KPI and card design was advised and developed in <a href="Justinmind">Justinmind</a> to provide a clear overview of health and driving data at a quick glance.

#### **Implementation**

**KEY OUTCOMES** 

The dashboard integrates a collection of data including ECG, heart rate and driving data that is available to the driver (and other users) in real time. The dashboard presents a personal overview of this data for drivers and a collective overview of all driver data for organisations who can identify risk factors for improved safety of their employees.

#### ervices are

- Companies can track and manage their driver's health status while driving to prevent fatigue and health related incidents on the road.
- The dashboard can present historical data for trend analysis of health KPI's for the driver to view and monitor.

#### **ABOUT US**

Our services are purposefully designed to provide a cohesive experience for organisations embarking on digital transformation. Our business aptitude is your advisory, our technical skills are your project delivery and our training roots enables your team to build upon success

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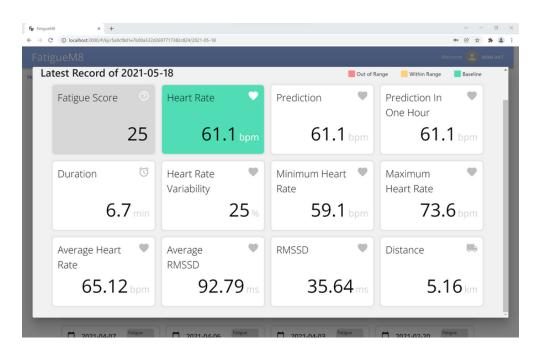




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## **DASHBOARD SECURITY**

To ensure driver data is secure and only accessible to authorised users a dashboard backend security framework was developed to permit strict viewing access. This was achieved in the AWS Stack utilising DynamoDB and AWS IAM.

#### **KEY OUTCOMES**

- Implemented a security model that protects driver information.
- Portal only presents allowed driving records for user groups

For more information, visit the <u>Fatigue M8 website</u>.

