

Explainable AI in a Sports Nutrition Planning Application

This bachelor thesis is about Explainable AI in a sports nutrition planning application. The goal is to research the effect of different explanation methods on users' their understanding of the underlying algorithm. The aim of the outcome is to present the reader with recommendations for integrating explainable AI in application development. These implementations should promote users' confidence in the abilities of the underlying algorithm, their trust in the organization behind the application and their comfort in sharing their data. To find out more about explaining, learning and understanding, literature research has been conducted. This was combined with research on existing explainable AI methods and on how to evaluate explainable AI. Eventually, four prototypes have been developed. Two major test rounds have been conducted to test the user experience and the understanding of the AI. The initial testround used A-B testing to compare different architectures, metaphors and methods. The second testround separately evaluated two designs. From these test rounds an evaluation has been written, summarizing and evaluating the requirements for developing explainable AI in a mobile application.