

Diabetes Management at Air Liquide Healthcare

• Diabetes : 425M adults affected worldwide



Type 1 diabetes : 10 % The body does not produce insulin



Type 2 diabetes : 90 % The body produces *inefficient* insulin

• Diabetes cannot be curated but can be managed

Provision of equipments

Remote monitoring



Sharing patient data with doctors

Machine Learning can help for :

- Glucose-level prediction
- Insulin delivery control
- Diet recommendation

https://www.airliquide.com/magazine/healthcare/diabetes-personalized-continuing-patient-monitoring

On Blood Glucose Level Prediction with Machine Learning Mehdi Rahim - Research Scientist Air Liquide - Research & Development

Educational programs

Personalized follow-up

Glucose Level Prediction with Machine Learning



Benchmarking Machine Learning Parameters for Glucose Level Prediction



Challenges related to glucose level prediction : • No clear winner on the most suitable model • Short term prediction is *easy* but has limited application • Long validation time range leads to better forecast • Prediction during night-time is harder than daytime





