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| Ref. | Approach | PH (min) | Model inputs | Data partition | Model evaluation | RMSE | Parker | ISO | MARD | Comments |
| [1]  2019 | 1) Preprocessing: outliers, inter/extrapolation (<12 hrs),  data cleaning  2) Label transforms  3) Dilated-CNN  4) Postprocessing: skip connections and several operations (RelU, etc.)  CNN-model:  5 layers  Sliding-window of 16 (kernel)  1 single output  Many-to-one structure | 30, 60 | 1) Glucose (mg/dL)  2) Insulin  3) Carbohydrates (g) | In silico data:   * 10 adults and 10 adolescents * 6 months * 3 meals/day * 288 glucose datapoints/day * 30 mins exercise, 2 days a week * Several insulin entries/day * Error introduction * 50% training (90%-10% CV) and 50% test sets   Real data:   * ABC4D 10 subjects. 6 consecutive months. 50% training, 90 days (90%-10% CV) and 50% test sets * Ohio: 6 subjects during 8 weeks. 40 days for training and 10 for testing. | 10 real subjects ABC4D  6 real Ohio  (T1DM) | ABC4D:  30 min: 19.19  60 min:  31.78  Ohio  30 min: 19.28  60 min: 31.83 | X | X | ABC4D:  30 min: 10.41  60 min:  19.28  Ohio  30 min: 8.73  60 min: 16.11 | No size of the input  Do not consider the error of sensor to harmonize time  different sensors: yes Ohio - Medtronic 530G or 630G insulin pumps and used Medtronic Enlite CGM sensors  ADC4D - Dexcom CGM devices  TIME LAG  All patients are in test and in training. Not all days are.  Comparison of models trained within different seasons: NO  Personalized: NO  No hyperparameters discussion, optimizer, etc. |
| [2]  2021 | 4 different approaches. Best was LSTM  1 model-per-subject (4 different models per subject)  1) Data imputation (linar) until missing values > 6h, discarded  2) Data standardization  3) In the training split: data expansion yo have more samples | 30,60 | 12-15 including smartphone data as sleep quality, illness level, exercise duration, etc. | 12 subjects during 32 days: 24 days for training and 8 for validation+10 days of out-of-sample testing (OhioT1DM)  Grid search:  N = [72,144,288,576]  Nº CNN\_layers  Neurons in hidden  Loss function: WMSE |  |  |  |  |  | Ohio sensors: insulin pump (Medtronic 530G or 630G)  Datapoints arranged in 5 minutes intervals  Other measures moved to the nearest time grid point when misalignment occurs  Continuous variables are filled in the correspondant time range |
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[1] <https://ieeexplore.ieee.org/abstract/document/8779644> GluNet

[2] <https://www.sciencedirect.com/science/article/pii/S1746809421005206>