Work Report

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ECG
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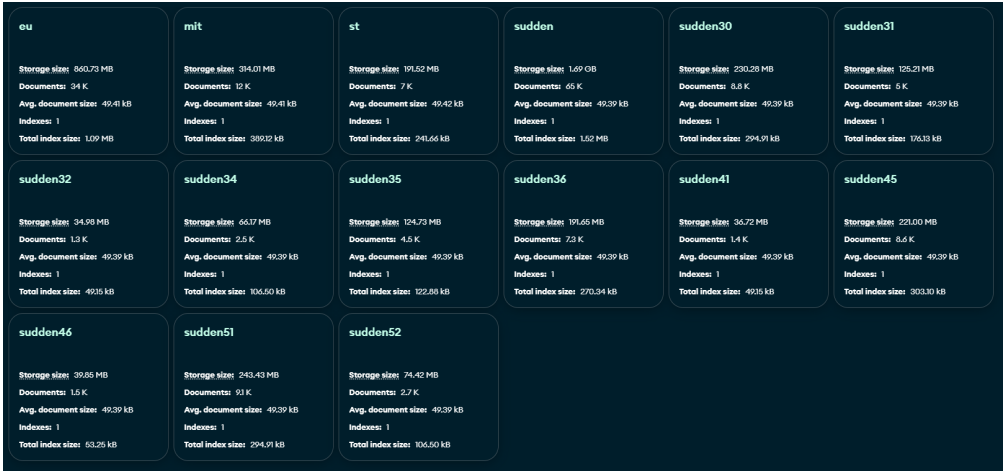
Databases

数据集名称	MIT-BIH Arrhythmia	MIT-BIH ST Change	European ST-T	Sudden Cardiac Death Holter
采样频率	360Hz	360Hz	250Hz	250Hz
导联方式	MLII、V1、V2、V4、V5	ECG	MLI、MLIII、V1、V2、V3、V4、V5、D3	ECG
每段数据持续时间	48 条半小时两通道动态心电图记录	28 条不同长度的记录	90 条持续时间为两个小时的动态心电图记录	23 条持续时间从 7 小时到 25 小时不等的完整的 Holter 记录
标签情况	均含有人工标注的心拍注释	均含有人工标注的心拍注释	均含有人工标注的心拍注释	其中有 12 条记录含有人工标注的心拍注释
储存格式	Format 212	Format 212	Format 212	Format 212

表: 数据集介绍

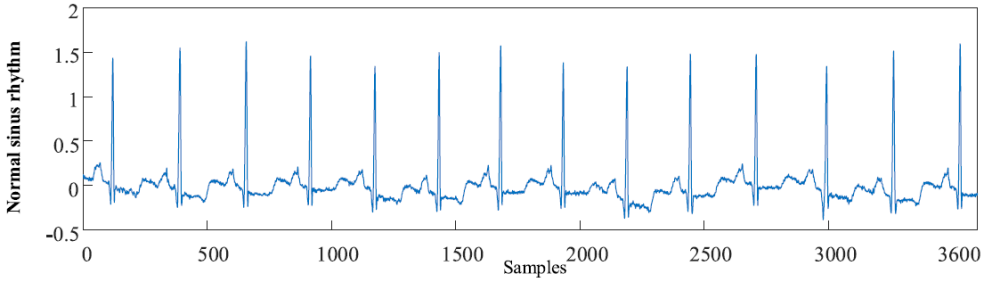
MongoDB


eu
Storage size: 860.73 MB
Documents: 34 K
Avg. document size: 49.41 kB
Indexes: 1
Total index size: 1.09 MB
mit
Storage size: 314.01 MB
Documents: 12 K
Avg. document size: 49.41 kB
Indexes: 1
Total index size: 389.12 kB
st
Storage size: 191.52 MB
Documents: 7 K
Avg. document size: 49.42 kB
Indexes: 1
Total index size: 241.66 kB
sudden
Storage size: 1.69 GB
Documents: 65 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 1.62 MB
sudden30
Storage size: 230.28 MB
Documents: 8.8 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 294.91 kB
sudden31
Storage size: 125.21 MB
Documents: 5 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 176.13 kB
sudden32
Storage size: 34.98 MB
Documents: 1.3 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 49.15 kB
sudden34
Storage size: 66.17 MB
Documents: 2.5 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 106.50 kB
sudden35
Storage size: 124.73 MB
Documents: 4.5 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 122.68 kB
sudden36
Storage size: 191.65 MB
Documents: 7.3 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 270.34 kB
sudden41
Storage size: 36.72 MB
Documents: 1.4 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 49.15 kB
sudden45
Storage size: 221.00 MB
Documents: 8.6 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 303.10 kB
sudden46
Storage size: 39.85 MB
Documents: 1.5 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 53.25 kB
sudden51
Storage size: 243.43 MB
Documents: 9.1 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 294.91 kB
sudden52
Storage size: 74.42 MB
Documents: 2.7 K
Avg. document size: 49.39 kB
Indexes: 1
Total index size: 106.50 kB

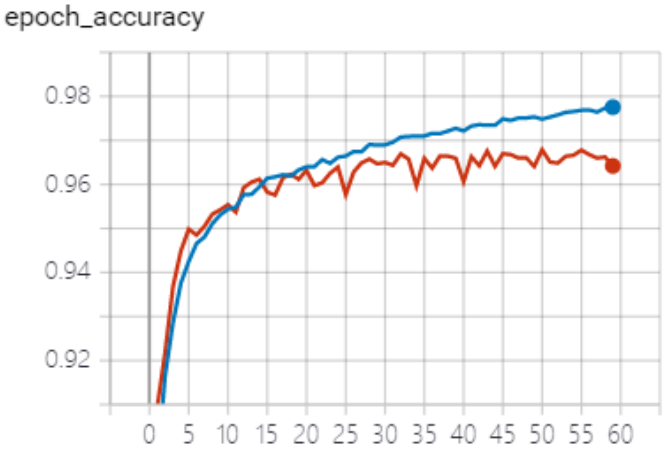
Data Format

- fs: 360 Int32
- from: ”sudden all” String
- lead: ”ECG” String
- p_signal: Array (3600) Array
- label: ”N” String
- resample: false Boolean

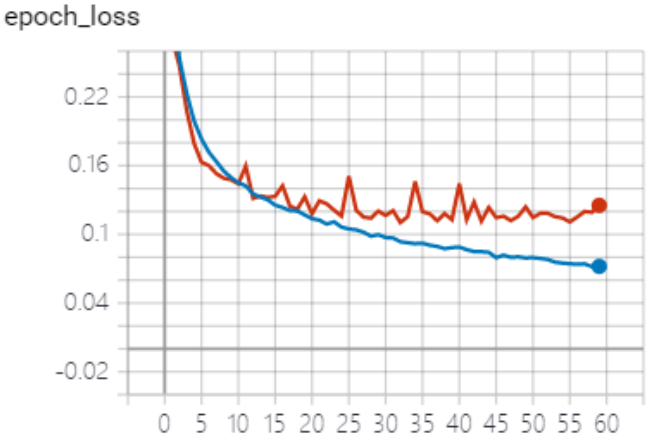
10s ECG


Normal sinus rhythm
2
1.5
1
0.5
0
-0.5
0
500
1000
1500
2000
2500
3000
3600
Samples

ACC



Loss



Confusion Matrix

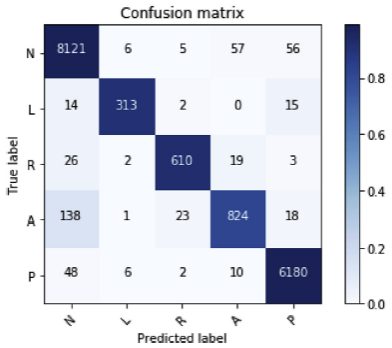


Fig. 5. Scheme A - Confusion matrix of the classified ECG segments (N = Normal, L = LBBB, R = RBBB, A = APB, P = PVC).

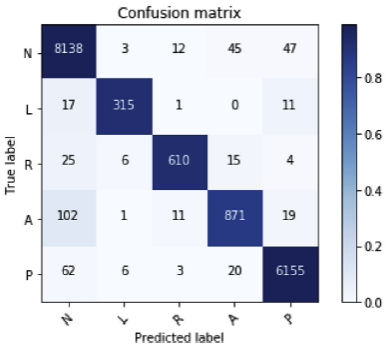


Fig. 6. Scheme B - Confusion matrix of the classified ECG segments (N = Normal, L = LBBB, R = RBBB, A = APB, P = PVC).

Sapiens

- Sapiens Foundation for Human Vision Models

Course Tasks

近期，大部分课程陆续开始结课报告，课程任务花费部分时间。

- NoSQL
- 高级机器学习
- 负责任的 AI
- 研究生实用英语
- 自然辩证法