



EDGAR

Embedded Detection of Gunshots by
AI in Real-time

23/09/2020

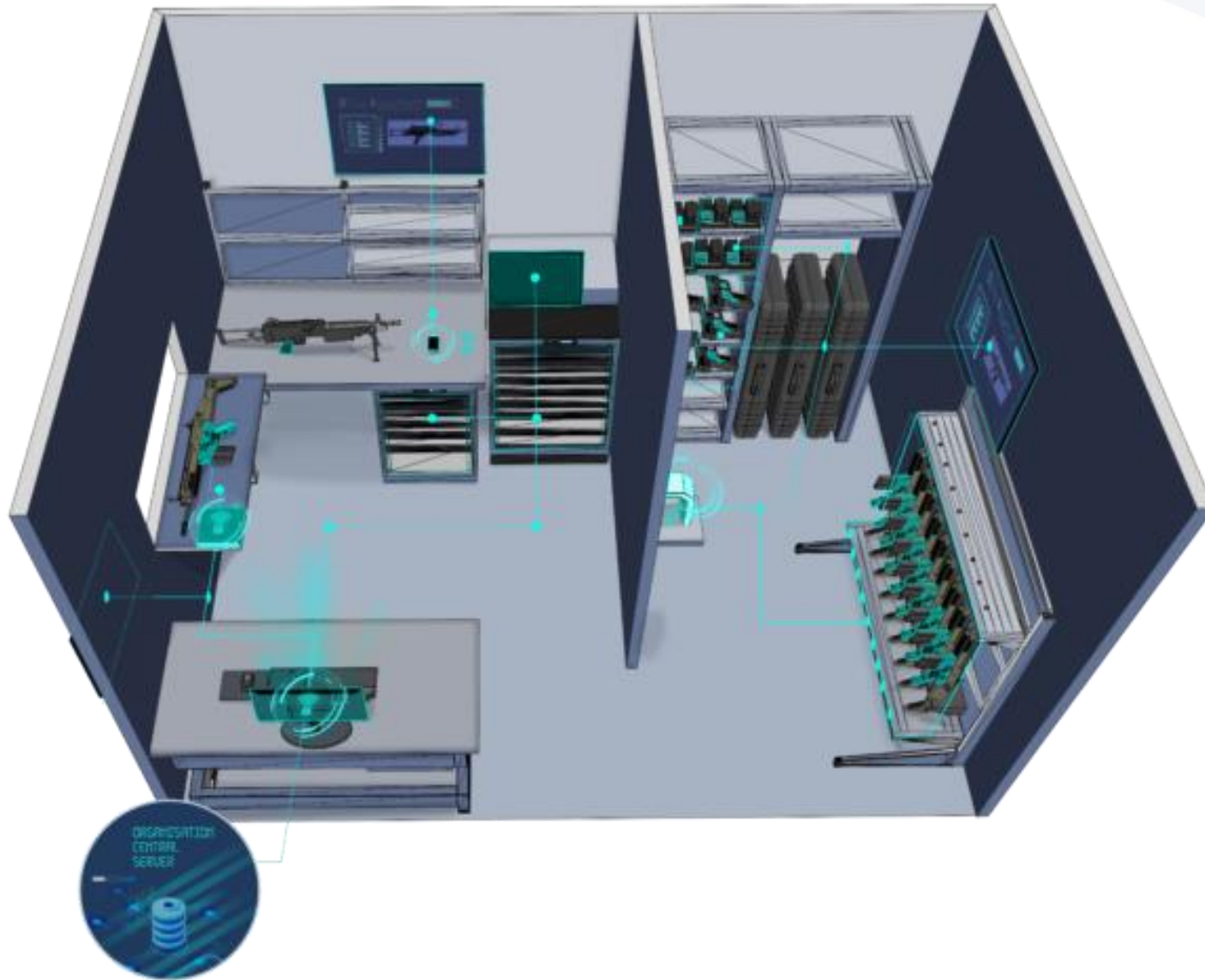
Nathan Morsa

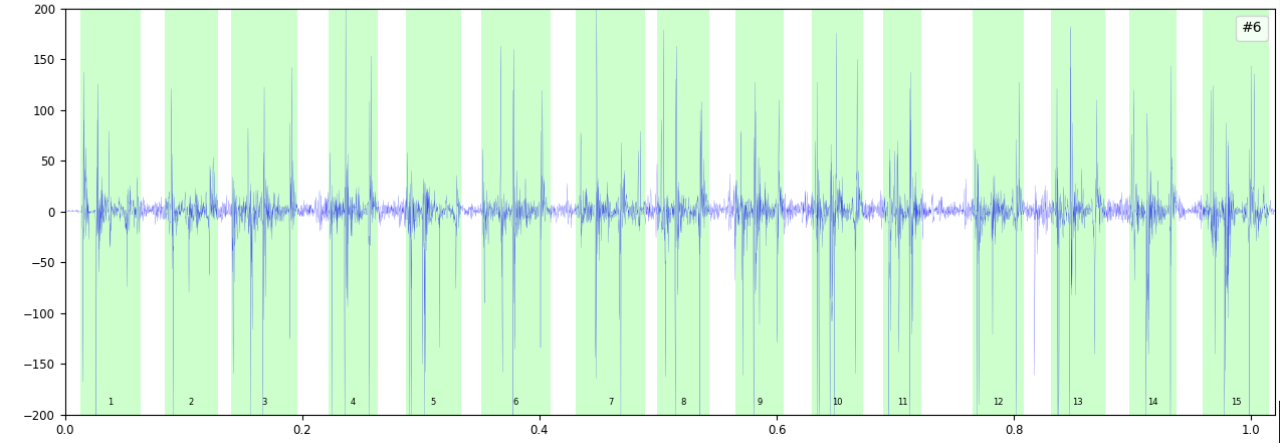
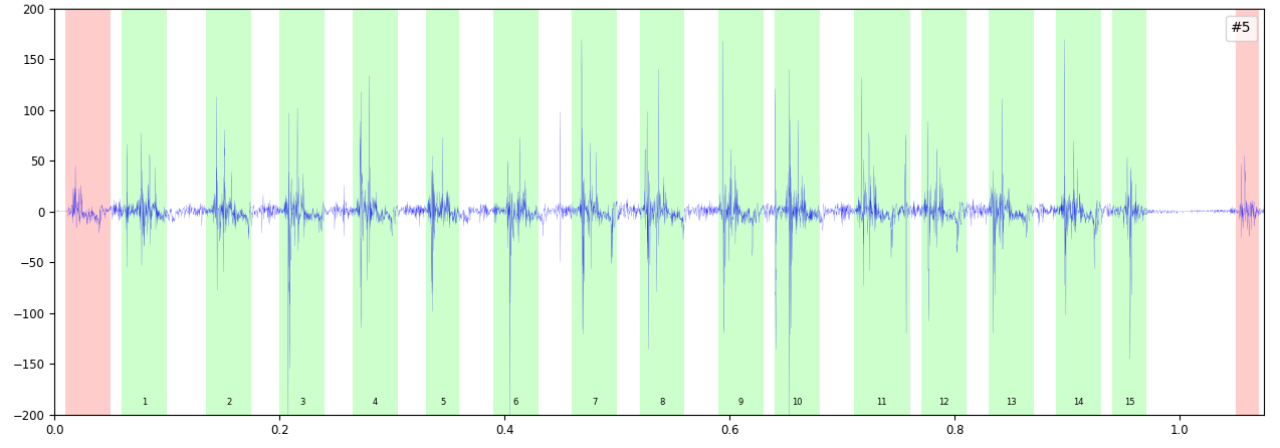
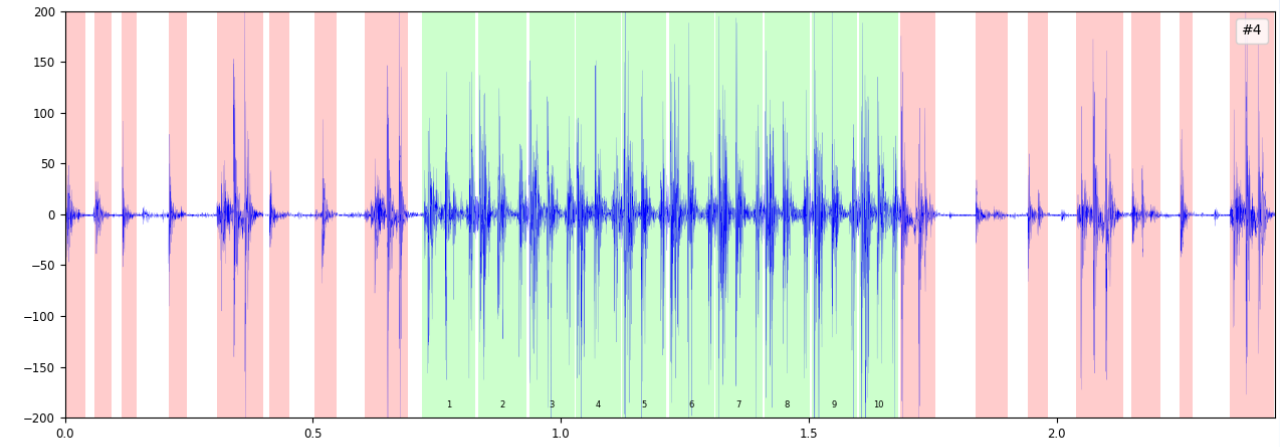
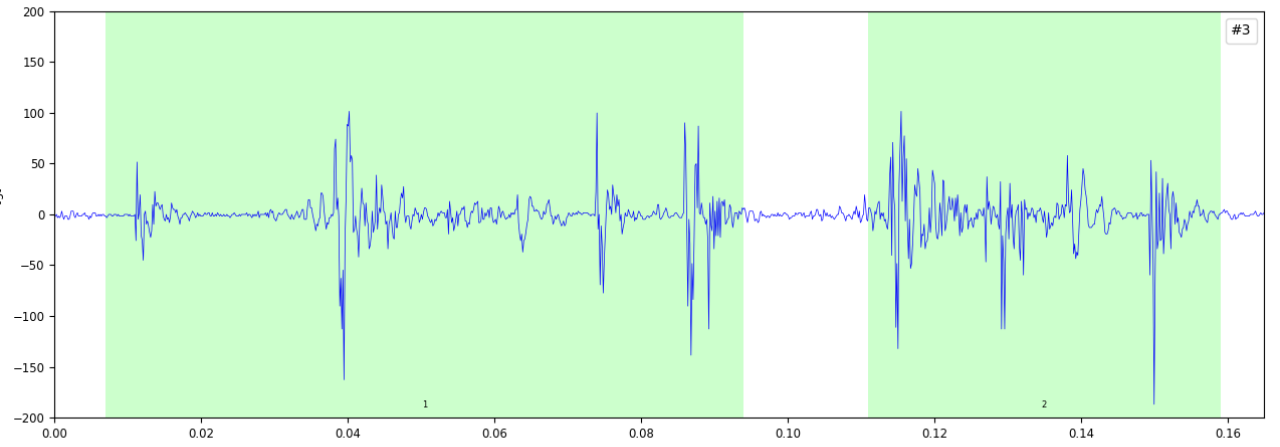
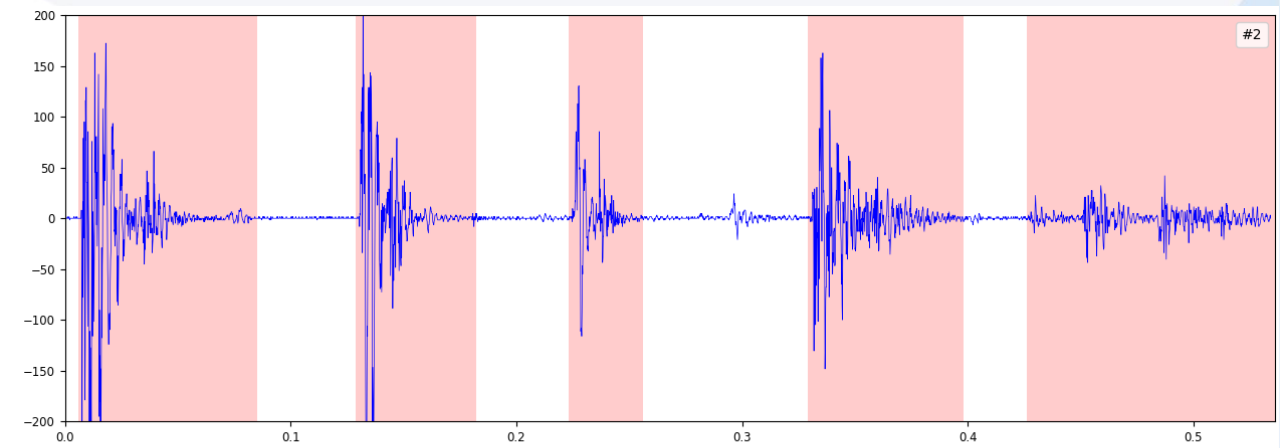
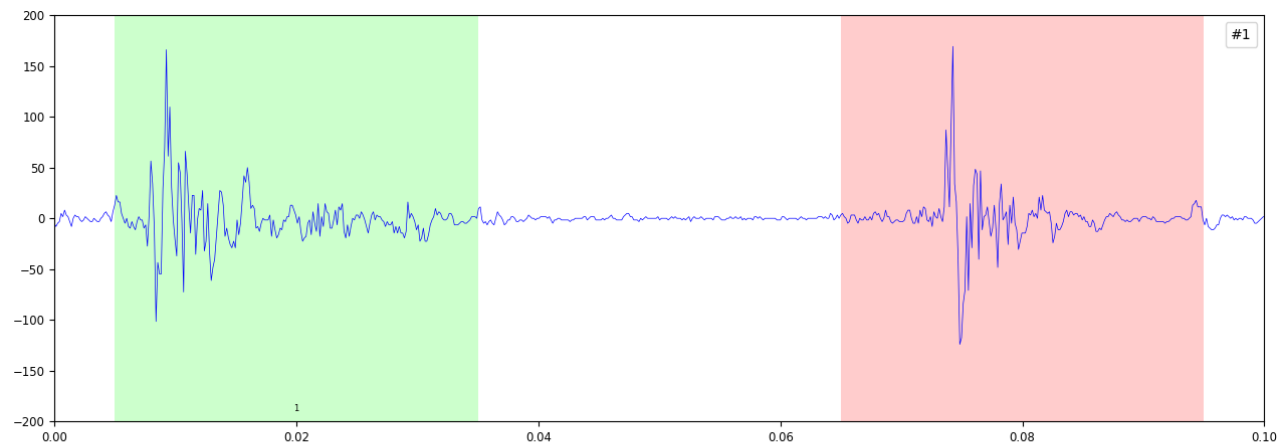


FN HERSTAL



SMART ARMORY

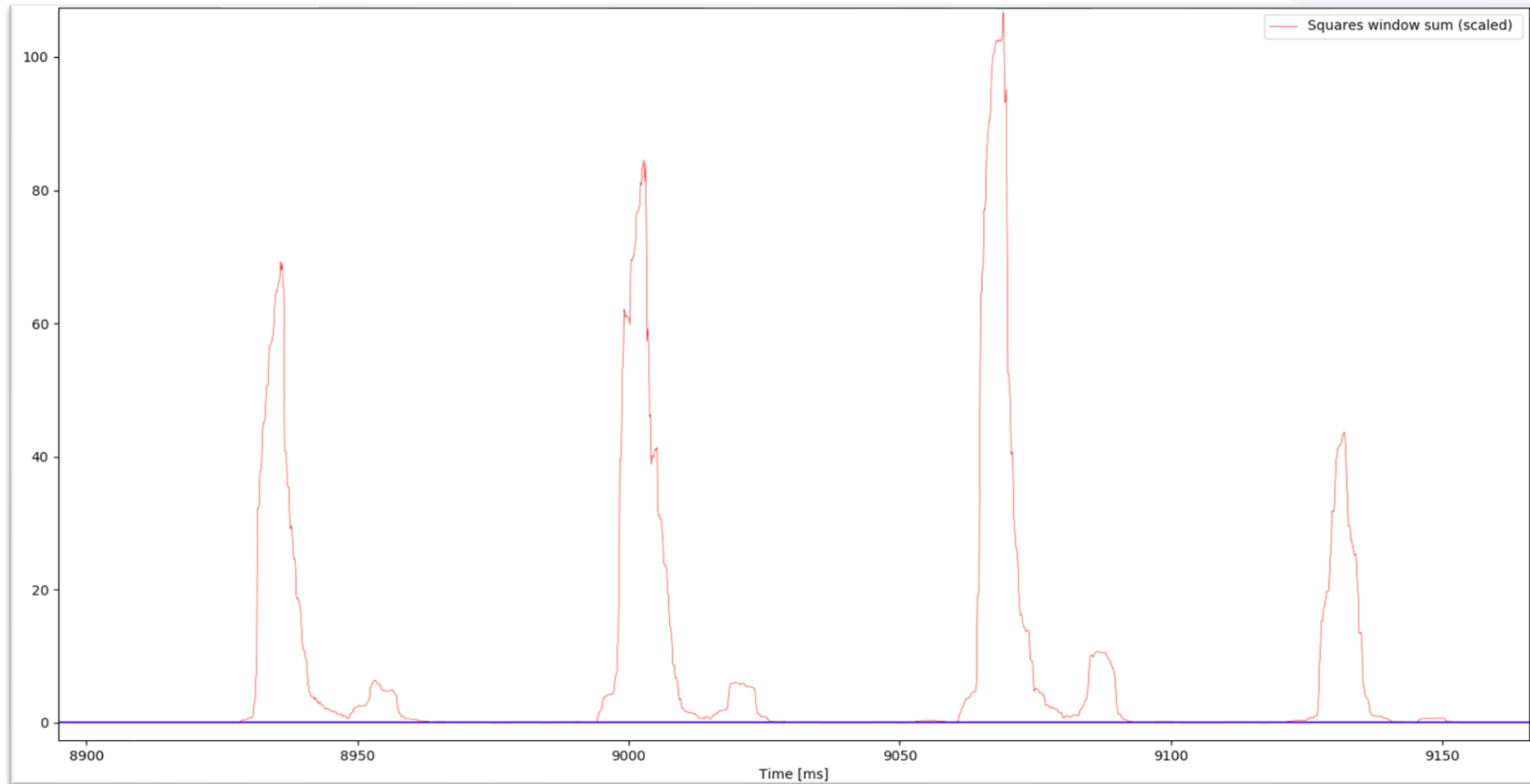




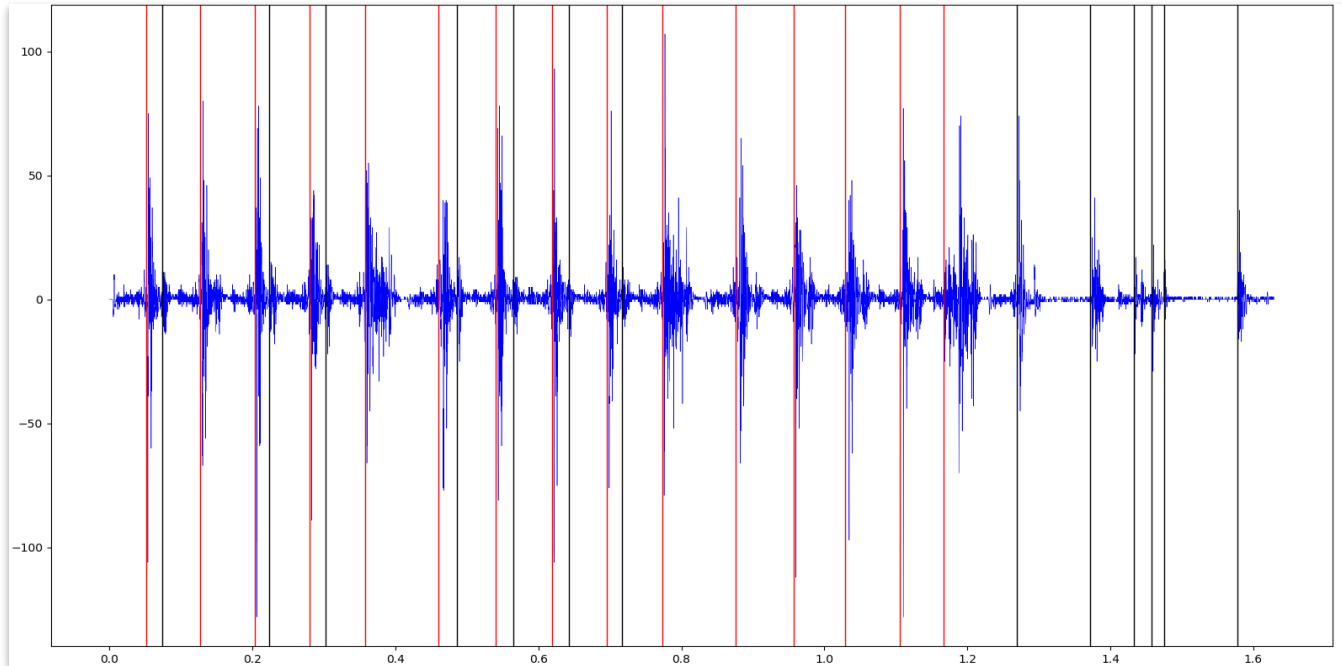
WEAK LABELS



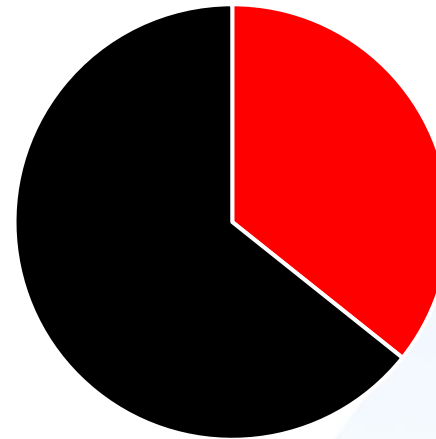
DUMB METRIC GIVES CANDIDATES



LABEL PROPORTIONS



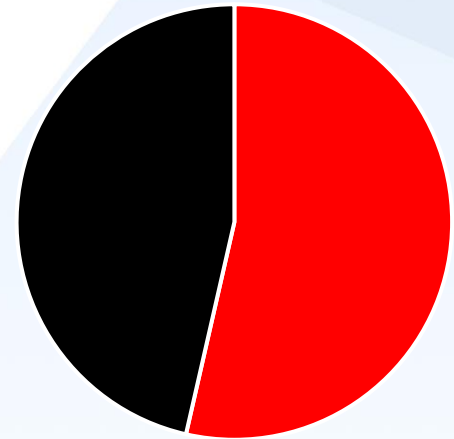
Prediction



■ Shot ■ Not a shot

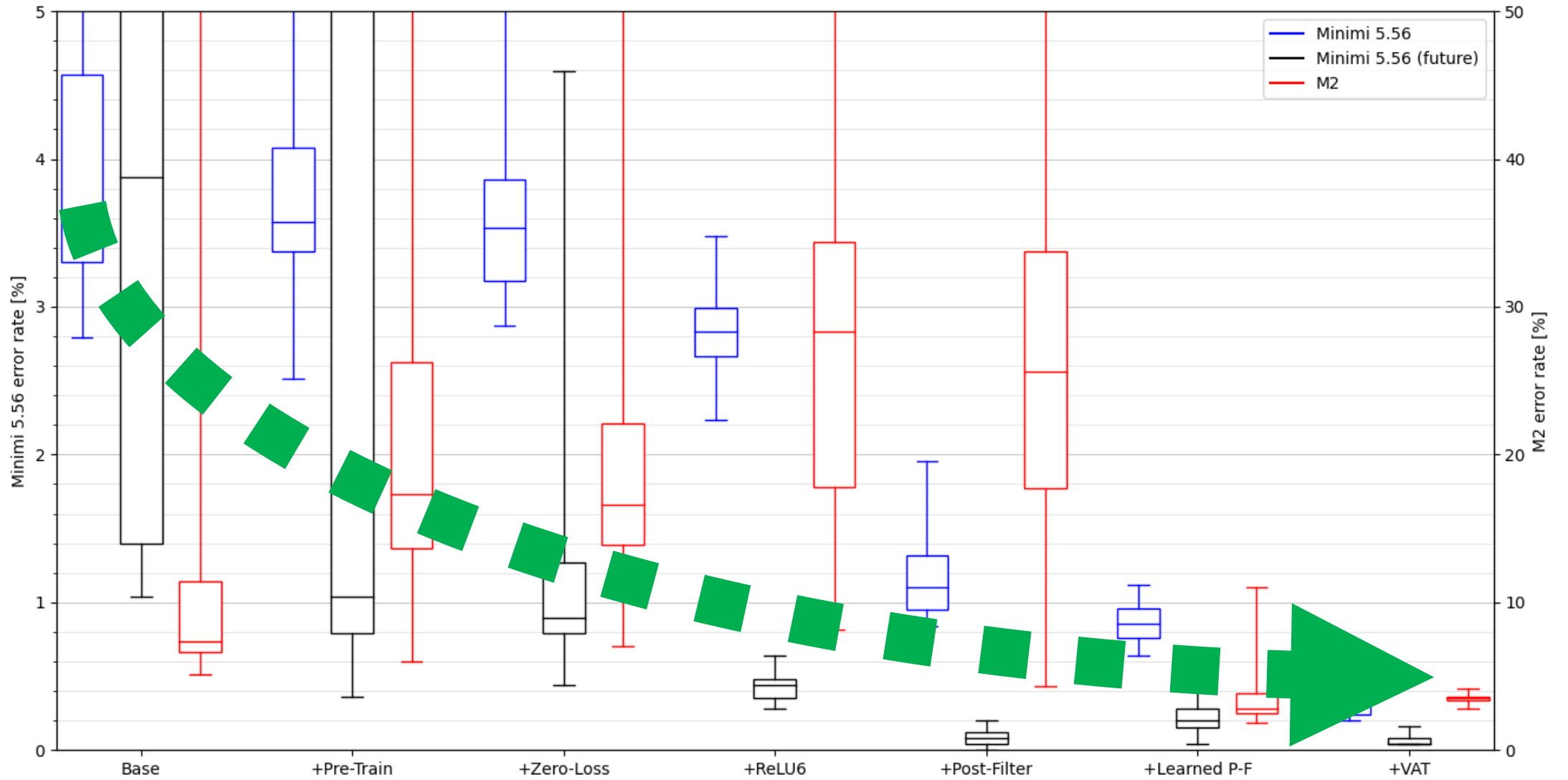
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Reality



■ Shot ■ Not a shot

... AND IMPROVEMENTS (CHECK THE PAPER!)



HOW DOES IT PERFORM?

| <u>Error rate</u> | Human | | EDGAR | | Unsupervised Validation |
|-------------------|------------|--------------|------------|--------------|-------------------------|
| | Validation | Real | Validation | Real | |
| Minimi 5.56 | 1.68% | 0.37% | 0% | 0.19% | 9.82% |
| M2HB-QCB | 0% | 1% | 2% | 8% | 36% |

