GameStory: Video Game Analytics Challenge

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Topic & Background

- MultiMediaEval 2018
- Video Game Streaming

Topic & Background

- Snipe.tv

- Counter Strike Global Offensive
  - Terrorist, Counter Terrorist
  - Best of 3 Matches

Training and Test Data

- Set of video streams, game logs and stream meta-data

- Training Set
  - 2 days of tournament
  - 11 matches

- Test Set
  - 1 day of tournament
  - 4 matches
  - Stream meta data missing!

Dataset - Videos

- 12 video streams per tournamet day
  - 10 x Player view
  - 1 x Commentator's view
  - 1 x Game map
- Codec: H264 / MPEG-4 AVC
- Resolution: 640x360
- Duration of one video between 7h – 12h
- Training set duration approx. 250h
- Test set duration approx. 130h

Dataset – Game Logs

- Includes events such as:
  - Player's purchases
  - Who killed whom?
  - Which weapon was used?
  - Which team has won?

Dataset – Game Logs - Examples

```
{
  "roundIdx": 12,
  "date": "2018-03-02T12:29:01.587+00:00",
  "type": "purchase",
  "data": {
    "actor": {
      "playerId": "autimatic",
      "ingameTeam": "TERRORIST"
    },
    "item": "flashbang"
  }
},
{
  "roundIdx": 12,
  "date": "2018-03-02T12:29:06.142+00:00",
  "type": "purchase",
  "data": {
```

```
  "roundIdx": 12,
  "date": "2018-03-02T12:31:07.031+00:00",
  "type": "round_end",
  "data": {
    "teamId": "95e1ecf1-d6ec-4643-96ef-ef971a9fa4fe",
    "ingameTeam": "TERRORIST",
    "reason": "SFUI_Notice_Terrorists_Win"
  }
},
{
  "roundIdx": 12,
  "date": "2018-03-02T12:31:11.853+00:00",
  "type": "bomb_plant",
  "data": {
    "actor": {
      "playerId": "RUSH",
      "ingameTeam": "TERRORIST"
    }
  }
},
```

```
  "roundIdx": 12,
  "date": "2018-03-02T12:31:04.118+00:00",
  "type": "kill",
  "data": {
    "actor": {
      "playerId": "tarik",
      "ingameTeam": "TERRORIST",
      "position": {
        "x": -801,
        "y": 279,
        "z": 89
      }
    },
    "victim": {
      "playerId": "NiKo",
      "ingameTeam": "CT",
      "position": {
        "x": -977,
        "y": 482,
        "z": 142
      }
    },
    "weapon": "ak47",
    "headshot": true,
    "penetrated": false
  }
},
```

Dataset – Stream Meta Data

- 1 File for Training/Test Set

```
id,start_time,duration,type,match_id,perspective,stream_file,stream_timestamp,UTC_timestamp
Ws92g,5930,3956,match,1,P2,2018-03-02_P2.mp4,01:38:50,2018-03-02 11:46:08+00:00
wBFTQ,5930,3956,match,1,P5,2018-03-02_P5.mp4,01:38:50,2018-03-02 11:46:08+00:00
sJgDN,5930,3956,match,1,P4,2018-03-02_P4.mp4,01:38:50,2018-03-02 11:46:10+00:00
ZWKdS,5930,3956,match,1,P8,2018-03-02_P8.mp4,01:38:50,2018-03-02 11:46:10+00:00
06PQc,5928,3956,match,1,P10,2018-03-02_P10.mp4,01:38:48,2018-03-02 11:46:10+00:00
NCUbo,5930,3956,match,1,P3,2018-03-02_P3.mp4,01:38:50,2018-03-02 11:46:11+00:00
XNDNy,5930,3956,match,1,P6,2018-03-02_P6.mp4,01:38:50,2018-03-02 11:46:11+00:00
MVP6K,5930,3956,match,1,P7,2018-03-02_P7.mp4,01:38:50,2018-03-02 11:46:11+00:00
HtOqg,5930,3956,match,1,P9,2018-03-02_P9.mp4,01:38:50,2018-03-02 11:46:11+00:00
GnGGQ,5928,3956,match,1,P12,2018-03-02_P12.mp4,01:38:48,2018-03-02 11:46:11+00:00
gI1T9,5932,3956,match,1,P1,2018-03-02_P1.mp4,01:38:52,2018-03-02 11:46:14+00:00
W5Fqn,2486,3956,match,1,P11,2018-03-02_P11.mp4,00:41:26,2018-03-02 11:46:17+00:00
1519993590388,4764,60,highlight,1,P11,2018-03-02_P11.mp4,01:19:24,2018-03-02 12:24:15+00:00
1519995087203,5012,45,highlight,1,P11,2018-03-02_P11.mp4,01:23:32,2018-03-02 12:28:23+00:00
1519995190510,6354,81,highlight,1,P11,2018-03-02_P11.mp4,01:45:54,2018-03-02 12:50:45+00:00
XS81t,10278,4530,match,2,P2,2018-03-02_P2.mp4,02:51:18,2018-03-02 12:58:36+00:00
AA3Dh,10278,4530,match,2,P5,2018-03-02_P5.mp4,02:51:18,2018-03-02 12:58:36+00:00
```

Video Summary - Methods

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Schedule

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References

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