

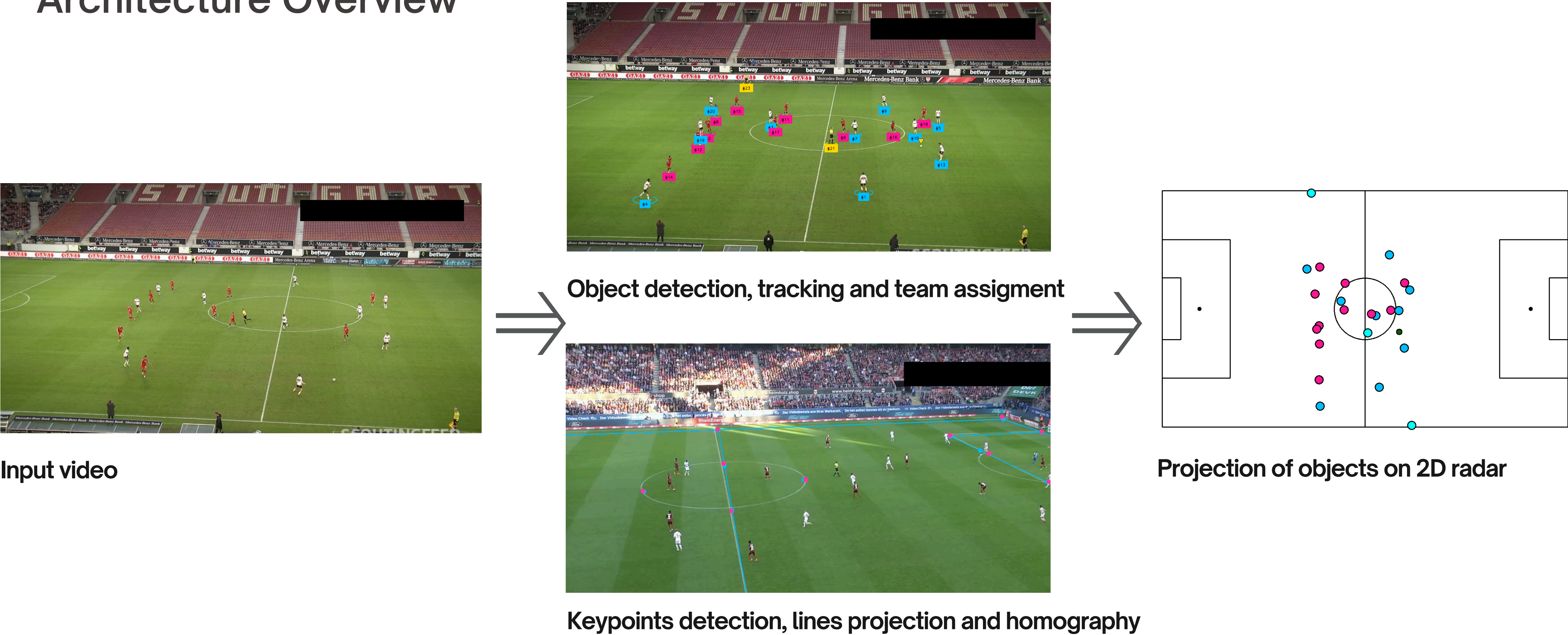
Automated Tracking of Players and Ball Movement in Football Video Footage

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Main Features

- Model for **players, referees, and goalkeepers** detection.
- Dedicated **model** for ball detection and tracking with **interpolation** of missing detections.
- **BoT-SORT** for ball tracking and **Bytetrack** for others.
- **Team assignment** using color classification, **SigLIP** embeddings, and **clustering**.
- **Projection** of movements onto a **2D radar** model of the football field using **homography**.
- **Airborn ball trajectory** correction on 2D radar and **configuration** for **Real-time** and **Post-match** analysis
- Analysis of player **speeds**, movement **directions**, ball **possession**, pressing **intensity** and generation of player **heatmaps**.

Architecture Overview



Real-time and Post-match Analysis

