

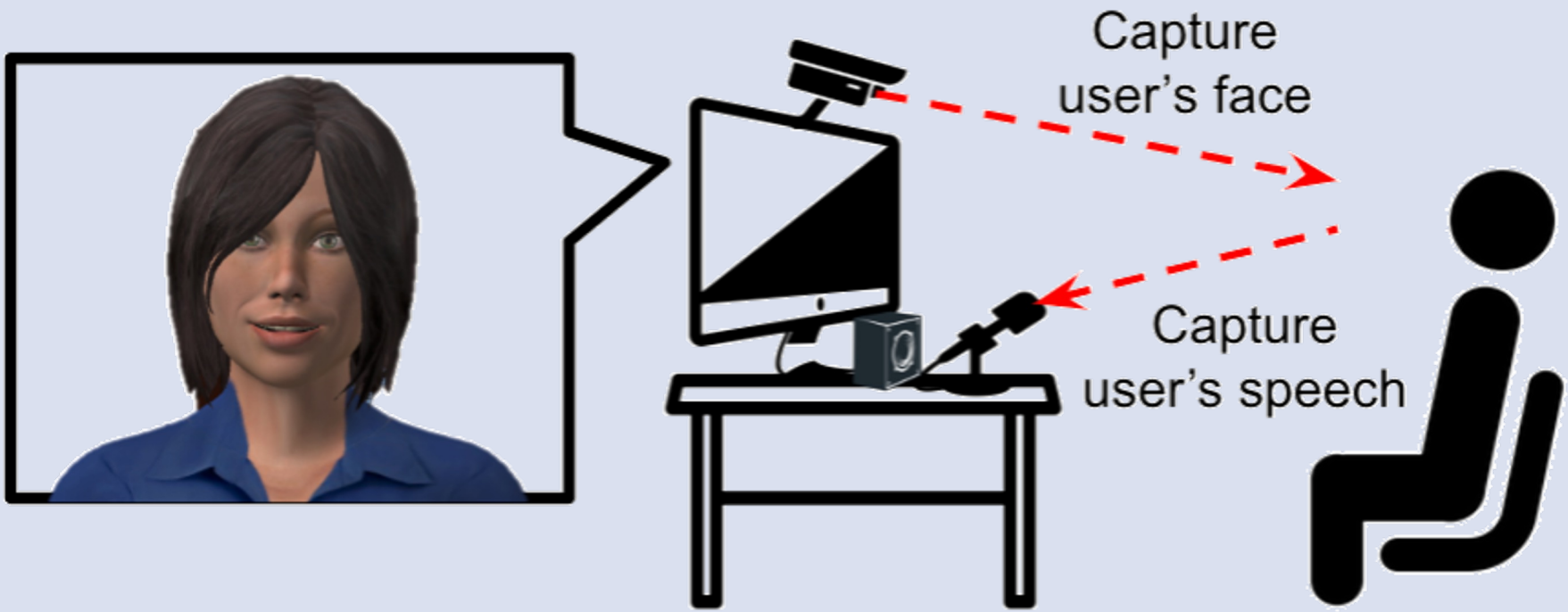
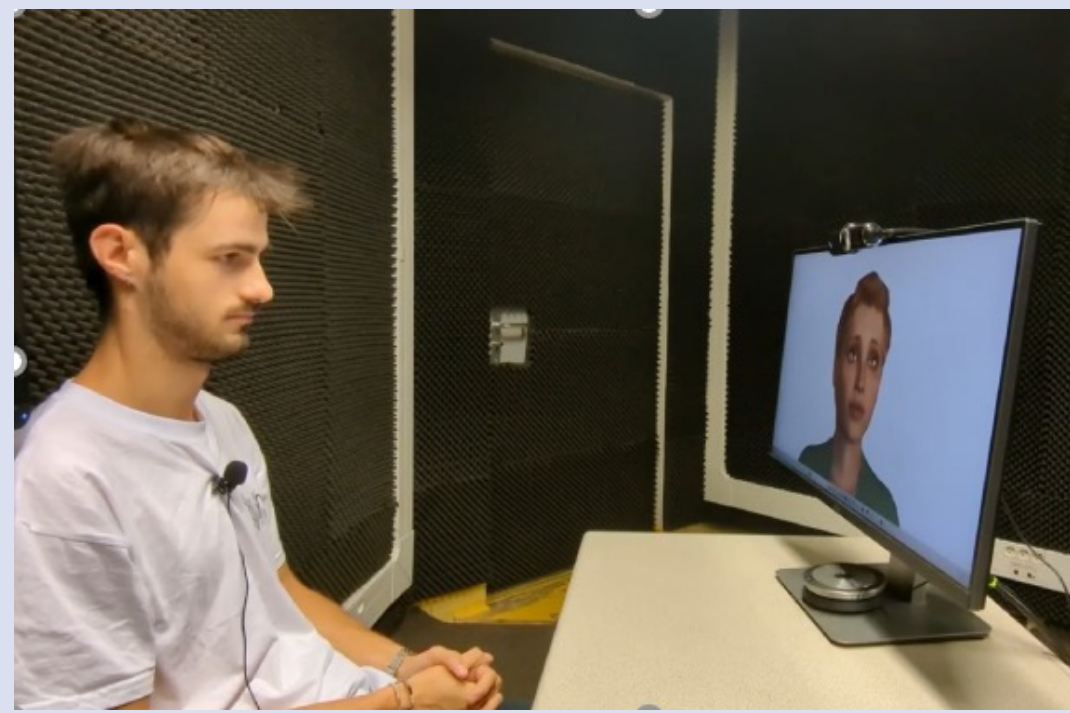
An Adaptive Virtual Agent Platform for Automated Social Skills Training

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System setup of the proposed system

The system runs the user-capturing toolkits, behavior generation model, Greta, and SST evaluation



**Social Skills Training system
with an adaptive real-time virtual agent**

System architecture diagram

System specification

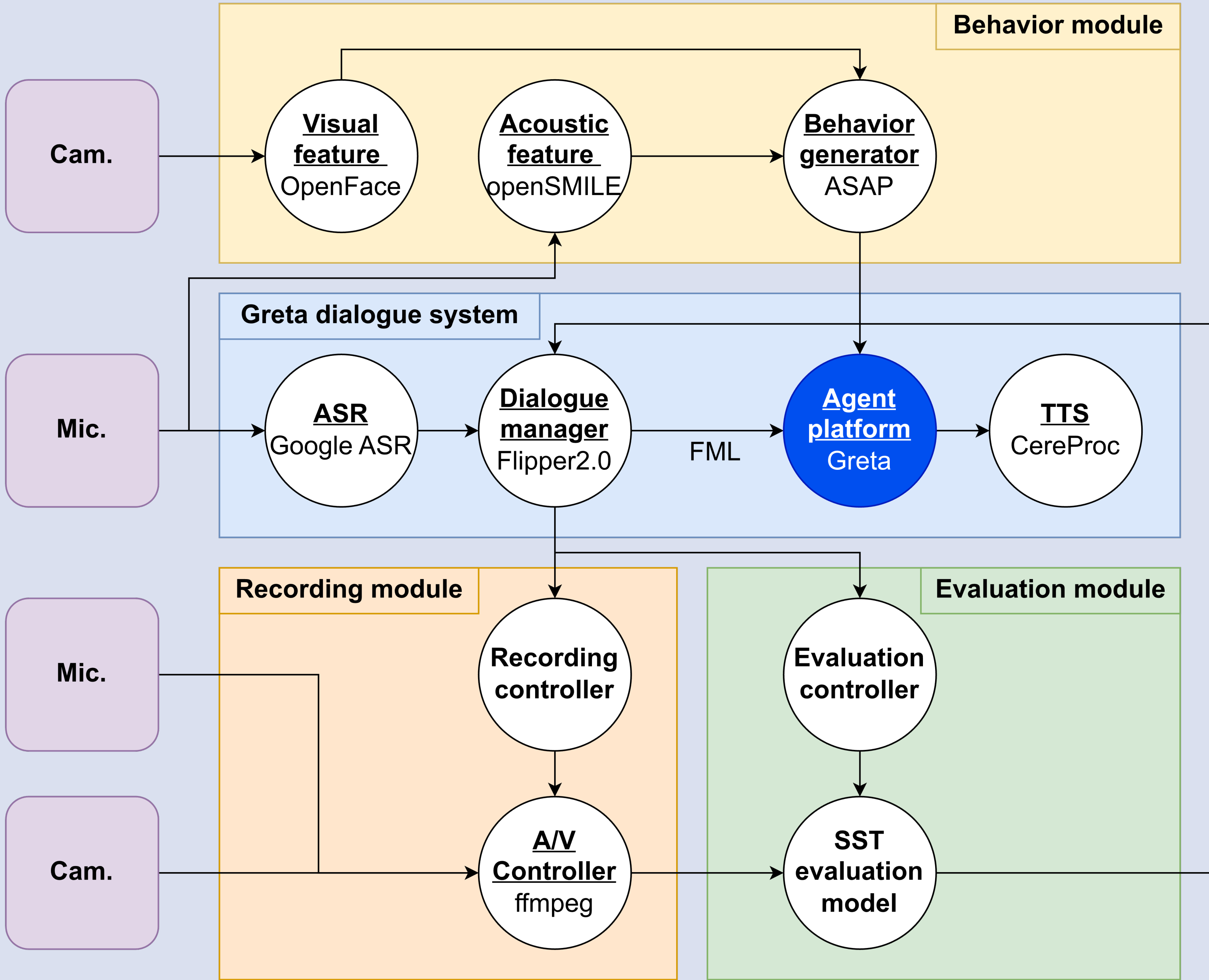
- Webcam: 1080p RGB
- Laptop:
 - 2.4GHz Intel Core i9
 - NVIDIA Quadro RTX4000
 - 64GB RAM
- Agent platform: Greta

System setup

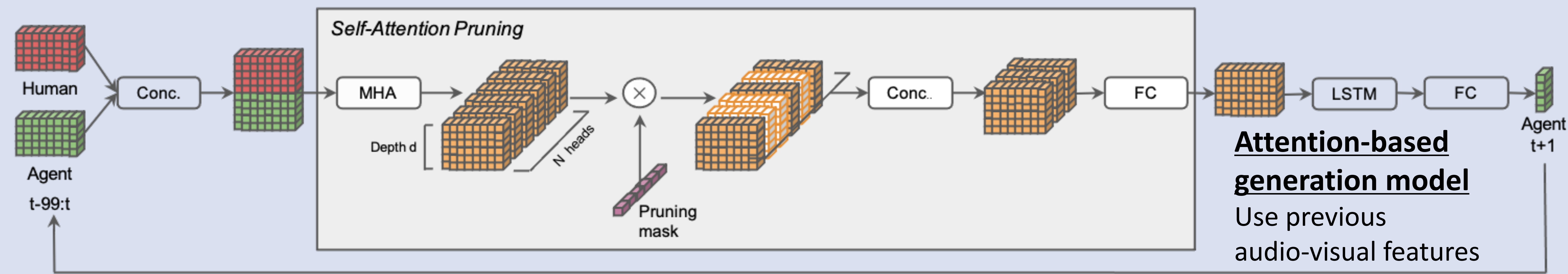
- 2 laptops
 - for agent control and social skills evaluation
 - for feature extraction and signal generation
- 2 microphones and 2 webcams
 - for signal generation
 - for social skills evaluation

Feature extraction

- OpenFace: capture facial(visual) features
- openSMILE: capture acoustic features

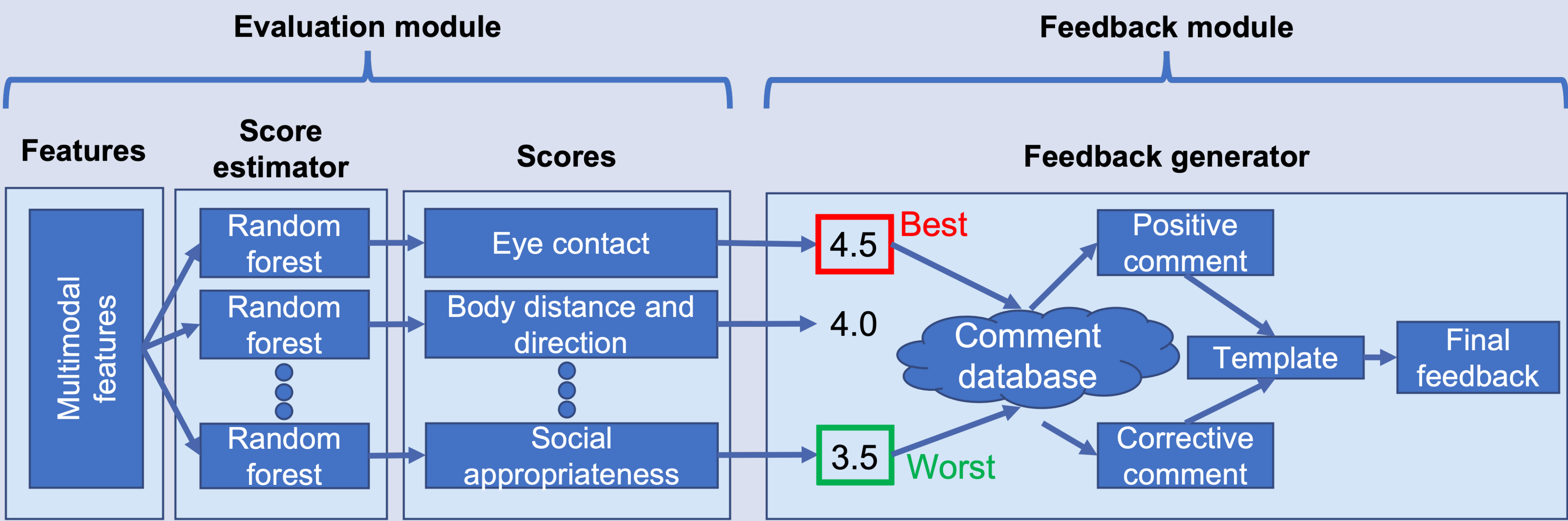


Adaptive nonverbal behavior generation model: ASAP [Woo+2023]



J. Woo, C. Pelachaud, C. Achard, "ASAP: endowing adaptation capability to agent in human-agent interaction", IUI, 2023

Social skills evaluation model [Saga+2023]



T. Saga, H. Tanaka, Y. Matsuda, T. Morimoto, M. Uratani, K. Okazaki, Y. Fujimoto, S. Nakamura, "Automatic evaluation-feedback system for automated social skills training", scientific reports, 2023

Social skills training

- Skills: LISTEN, TELL, ASK, DECLINE
- Interact with agent in short scenario
- Scoring social skills performance
- Generate positive/negative comments