



TED UNIVERSITY

CMPE 491

Senior Design Project I- Project Proposal

SafeTalk

PROJECT URL : <https://safetalkproject.vercel.app/>

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SafeTalk is an artificial intelligence-enabled voice protection system developed to improve user security in online games and voice chat/communication platforms. The project temporarily turns off the sound or aims to provide a software solution by analyzing live conversations and detecting expressions that contain harmful, inappropriate or personal information.

SafeTalk has a comprehensive system that integrates artificial intelligence-based voice activity detection, speech-to-text conversion, content analysis, real-time data processing, risky expression classification, automatic voice shutdown and warning mechanisms, user interaction tracking, and many more intelligent components. This structure is designed to provide a secure, privacy-focused and user-friendly experience across different voice communication platforms.

The project aims to improve security in online environments, especially for children and young users, while also promoting a culture of digital awareness and ethical communication. In addition, thanks to the mobile app integrated with SafeTalk, parents can closely monitor the safety of their children by receiving real-time notifications when potentially harmful conversations are detected. As a result, SafeTalk is not just a software product; it is a social technological initiative that aims to create a safe, conscious and respectful communication environment in the digital age, focusing on preventing child abuse and protecting users from harmful interactions.