

Jarvis AI: An Intelligent Personal Voice Assistant using Python and Artificial Intelligence

Mr. Surendra Kamble, Mr. Atharv Hande, Mr. Sumit Ghatul,

Prof. A. P. Bangar, Dr. A. A. Khatri

Computer Department

Jaihind College of Engineering Kuran, Pune, India

Surendrakamble55184@gmail.com , handeatharv7@gmail.com , sumitghatul1@gmail.com

Abstract: *In the era of Artificial Intelligence (AI) and automation, intelligent personal assistants have become integral to modern digital ecosystems. However, most existing assistants are cloud-dependent, limited in offline capabilities, and constrained to predefined functions. This paper proposes Jarvis AI, a Python-based intelligent personal assistant capable of performing multitasking operations through speech recognition, natural language processing (NLP), and automation modules. Jarvis can understand voice commands, interact conversationally, execute system operations (like opening applications, searching the web, sending WhatsApp messages, managing files), and even generate AI-based images through integrated APIs. Using modular architecture and machine learning, Jarvis learns user preferences and optimizes responses over time. The system integrates speech-to-text, text-to-speech, and task automation technologies with a graphical interface for real-time interaction, providing a scalable and efficient approach toward personalized digital assistance.*

Keywords: Artificial Intelligence, Personal Assistant, NLP, Python, Speech Recognition, Automation, Machine Learning, Voice Interface

