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AI-Powered Chatbots in Banking: Developer Best Practices for Enhancing Efficiency and Security

Venkata Baladari
Sr. Software Developer, Newark, Delaware, USA
vrssp.baladari@gmail.com

Abstract: *Chatbots powered by AI technology are revolutionizing banking by enhancing customer support, streamlining processes, and increasing digital security measures. These chatbots employ artificial intelligence, natural language processing, and machine learning techniques to offer rapid assistance, execute transactions, and deliver customized financial guidance. Banks can achieve cost reductions, enhanced efficiency, and more effective fraud detection with their assistance. This study examines the primary technologies driving banking chatbots, encompassing AI, blockchain, and predictive analytics. The analysis also looks at security concerns including data confidentiality, verification processes, and adherence to financial rules. Developers can create chatbots that offer secure and efficient digital banking experiences by implementing these guidelines. With advancements in AI technology, chatbots are expected to gain more sophistication, ultimately leading to quicker, more secure, and more user-friendly banking services. This study is designed to facilitate the creation of AI-driven banking solutions in a rapidly evolving financial environment.*

Keywords: AI-powered chatbots; Cybersecurity; Natural Language Processing; Machine learning; Predictive analytics

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