

# Discover Your Perfect Tech Career Path

Get comprehensive **FREE AI analysis** with personalized career recommendations, learning roadmaps, **real projects to build your portfolio**, and downloadable reports - all powered by **advanced AI technology**.

Start Free AI Assessment 

Explore Real Projects 

# AI-Powered Banking Assistant: Intelligent Customer Service Agent by Opeyemi Adeniran



# Problem Statement

Traditional banking customer service faces significant limitations in meeting modern customer expectations while maintaining operational efficiency and security standards.

## Project Focus

1. Service Availability & Response Time
2. Operational Costs & Scalability
3. Service Consistency & Quality
4. Security & Compliance Challenges
5. Customer Experience Gaps



# Objective

To develop an AI-powered conversational agent that provides instant, secure, and consistent banking customer service while reducing operational costs and improving customer satisfaction through 24/7 availability and intelligent automation of routine banking inquiries.



# Weekly Goals

01

**Data Gathering  
& Planning**

02

**AI  
Development &  
Core Features**

03

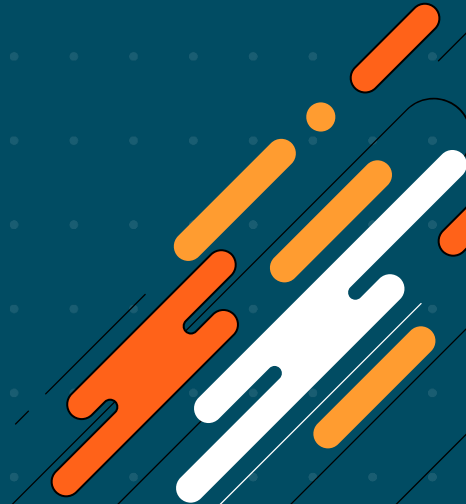
**Enhancement  
& Quality  
Assurance**

04

**Deployment & Launch**

05

**Project Demo**



# Week 1: Data Gathering & Planning

- Collect banking customer service datasets, FAQ data, and financial terminology
- Set up secure development environment and begin data processing pipeline
- Design AI architecture and oversee banking data strategy
- Define testing scenarios, success metrics, and create banking test cases
- Plan secure user interface and banking conversation flow design
- Establish banking security protocols and compliance frameworks
- Complete dataset with banking FAQs and 50+ conversation examples per banking intent

## Week 2: AI Development & Core Features

- Build intent classification for banking queries, entity extraction, and secure response generation
- Develop secure chatbot interface and create banking wireframes
- Create banking business rules (account types, transaction limits, security policies)
- Begin testing with banking conversation scenarios and security validation
- Review AI model performance for banking accuracy and provide technical guidance
- Implement banking security measures, encryption, and API protection
- Working AI prototype with 85%+ banking intent accuracy and secure UI design

## Week 3: Enhancement & Quality Assurance

- Add advanced banking features (transaction history, account management, fraud detection)
- Enhance banking UI/UX based on testing feedback and optimize security experience
- Comprehensive testing across all banking scenarios and security interface testing
- Performance optimization and banking accuracy improvements
- Prepare banking documentation and compliance training materials
- Security testing, penetration testing, and vulnerability assessment
- Production-ready banking system with 90%+ customer satisfaction and secure interface



# Week 4: Deployment & Launch

- Deploy to secure cloud platform with banking-grade monitoring and integrations
- Final design polish and responsive optimization for banking mobile/web platforms
- Final user acceptance testing, security testing, and banking compliance validation
- Finalize banking documentation and create user training materials
- Establish ongoing monitoring and banking improvement processes
- Final security review, compliance audit, and banking regulation checks
- Live banking AI agent with secure interface handling real customer banking inquiries

# Team



**Jamoya Jamoya Mondle**

<https://www.linkedin.com/in/jamoya-mondle-41772328a/>

**ML/AI Developer**



**Khadijat (Funmilayo) Ajayi**

<https://www.linkedin.com/in/khadijat-ajayi-75a2b2192/>

**Ui/ux Designer**

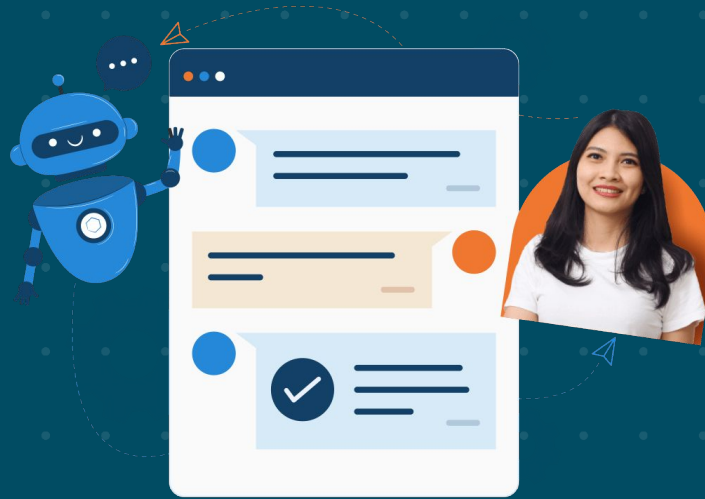


**Opeyemi Adeniran**

<https://www.linkedin.com/in/khadijat-ajayi-75a2b2192/>

**ML/AI Developer**

# Project Final Deliverable



<https://github.com/opeyemiTaiwo/AI-Powered-Banking-Assistant-Intelligent-Customer-Service-Agent.git>