

Dhruv Dixit

AI Engineer & Intelligent Automation Engineer

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PROFESSIONAL SUMMARY

AI Engineer and Intelligent Automation Engineer with 3+ years of experience building enterprise AI applications and automation solutions in financial services. Experienced in **LLM applications, agentic workflows, RAG, MCP integrations, multimodal and voice AI, hybrid search, Python backends, REST APIs and intelligent automation**. Currently leading a team of **3 engineers** and delivering solutions spanning business requirements, technical design, development, integrations and production deployment. Combines AI engineering with enterprise workflow automation to solve business problems and improve operational efficiency.

TECHNICAL SKILLS

Generative AI: LLMs, AI Agents, Agentic Workflows, RAG, Prompt Engineering, Context Engineering, OpenAI, Gemini, Azure OpenAI, Claude, LangChain, MCP

AI Applications: Conversational AI, Voice AI, Multimodal AI, Semantic Search, Hybrid Retrieval, BM25, Vector Search, AI Evaluation

Backend & Integration: Python, FastAPI, Flask, REST APIs, SQL, API Integration, Enterprise Application Integration, Docker, Git

Vector Databases & Data: FAISS, Milvus, Chroma, BM25, Relational Databases, Pandas, NumPy

Automation & Orchestration: UiPath, n8n, Power Automate, Selenium, RPA, Workflow Automation, Exception Handling, Process Orchestration

Voice & Cloud Technologies: LiveKit, WebRTC, Sarvam AI, Whisper, ElevenLabs, Anam AI, Speech-to-Text, Text-to-Speech, Azure

PROFESSIONAL EXPERIENCE

AI & Intelligent Automation Engineer *ICICI Prudential AMC*

Jun 2023 – Present

- Lead a **3-engineer team**, driving enterprise AI and automation initiatives from requirements gathering and solution architecture through development, testing, deployment and production support.
- Partner with business and technology stakeholders to identify automation opportunities and translate business requirements into **scalable AI applications, backend services, REST APIs and enterprise workflow solutions**.
- Independently built and productionized **i-Assist**, a multimodal voice AI agent embedded in i-Invest Android and iOS applications, serving **lakhs of investors** and used by **thousands of users daily** for portfolio insights, mutual-fund queries, comparisons, metrics and FAQs.
- Developed **30+ MCP tools and AI-agent integrations** connecting financial APIs and enterprise systems, orchestrated through **11+ n8n workflows** to support business processes and system interactions.
- Designed and deployed **Smart Search**, combining semantic retrieval and BM25-based keyword search across enterprise website content, achieving **95%+ search accuracy and relevance** with response times ranging from milliseconds to approximately **1 second**.
- Built **Customer Support Automation** using AI agents, RAG and workflow orchestration, achieving **85%+ accuracy** across targeted customer-support email and ticket workflows.
- Developed **Customer Support Call Analysis**, processing approximately **8,000 calls per day** using Whisper and Azure OpenAI for transcription, quality assurance, policy adherence, sentiment, intent, first-call resolution and CRM classification.
- Built **Dive Deeper**, a GenAI search experience within i-Invest that combines conversational AI responses with traditional search results to support contextual financial discovery.
- Led the transition from traditional RPA to **intelligent automation**, introducing LLM-based decision logic into enterprise workflows and mentoring automation developers.
- Delivered **30+ UiPath bots**, optimized **25+ automation projects** and migrated **180+ bots** to scalable orchestration environments.
- Created **Workflow Analyzer** to automate UiPath code review and governance, improving consistency and maintainability across enterprise automation processes.
- Automated enterprise business processes using **UiPath and Python**, reducing manual workload by up to **99%** across selected processes, with application integrations, validation, exception handling and monitoring.

Associate Software Engineer *Nagarro*

March 2023 - June 2023

- Developed Python and Java automation scripts, REST APIs and cloud-enabled reporting solutions for business applications.

SELECTED AI & AUTOMATION PROJECTS

i-Assist - Multimodal Voice AI Assistant *Python, LiveKit, WebRTC, Gemini, OpenAI, Sarvam AI, Whisper, ElevenLabs, Anam AI, MCP*

- Independently built and productionized a multimodal voice AI agent embedded in the i-Invest Android and iOS applications, enabling investor queries about portfolios, mutual funds, comparisons, financial metrics and FAQs.
- Integrated speech-to-text, LLM-based reasoning, text-to-speech, real-time communication and avatar interaction to deliver an end-to-end conversational AI experience.
- Deployed the solution on an investment platform serving **lakhs of investors**, with usage by **thousands of users daily**.

Smart Search - Hybrid Enterprise Retrieval *Python, Embeddings, Vector Search, BM25, FAISS/Milvus/Chroma*

- Designed and deployed a hybrid enterprise search platform combining semantic/vector retrieval and BM25 keyword search across financial and enterprise website content.
- Achieved **95%+ search accuracy and relevance**, with response times ranging from milliseconds to approximately **1 second**, improving the discovery of relevant financial information through natural-language and keyword queries.

Dive Deeper - GenAI Search Experience *LLMs, Conversational AI, Enterprise Search*

- Built a GenAI experience within i-Invest Search that combines conversational AI responses with traditional search results, enabling users to explore financial information through contextual questions and AI-generated explanations.

Customer Support Automation *Python, LLMs, AI Agents, RAG, Workflow Orchestration*

- Built AI-powered customer-support email and ticket workflows using retrieval-augmented generation, agentic processing and workflow orchestration to reduce repetitive manual handling.
- Achieved **85%+ accuracy** across targeted customer-support workflows while automating relevant processing activities.

Customer Support Call Analysis *Python, Whisper, Azure OpenAI, Speech Analytics*

- Developed an AI-powered call-analysis solution processing approximately **8,000 calls per day**, covering transcription, quality assurance, policy adherence, sentiment, intent, first-call resolution and CRM classification.
- Converted unstructured call conversations into structured insights to support quality monitoring, customer-experience analysis and operational reporting.

MCP Tools & Enterprise AI Integrations *Python, MCP, REST APIs, AI Agents, n8n*

- Developed **30+ MCP tools and AI-agent integrations** connecting financial APIs and enterprise systems to enable tool-assisted data retrieval and business-process execution.
- Integrated and orchestrated enterprise workflows through **11+ n8n workflows**, connecting AI capabilities with APIs and business systems.

Workflow Analyzer - RPA Code Review & Governance *UiPath, Python, Automation, Workflow Analysis*

- Created an automated code-review and governance solution for UiPath workflows to improve code consistency, maintainability and development standards across enterprise RPA processes.
- Contributed to an automation portfolio involving **30+ bots delivered, 25+ projects optimized** and **180+ bot migrations** to scalable orchestration.

EDUCATION

B.Tech (Hons.) in Computer Science and Engineering *2019 - 2023*
United College of Engineering and Management, Prayagraj **GPA: 8.98**

ACHIEVEMENTS

2nd Prize - UiPath Botathon 2.0 (Team Lead; 136 teams from 17 states) • **3rd Prize - CSI CodeChanakya Hackathon**