



# DONALD MCKINNEY

## CONTACT

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## WEBSITES, PORTFOLIOS, PROFILES

- donmckinney12-github-io.vercel.app

## EDUCATION

May 2025

Bachelor of Science: Computer  
Science

**Illinois Institute of Technology,**  
Chicago, IL

September 2017

GED

**Kennedy King College,** Chicago, IL

## PROFESSIONAL SUMMARY

I have a strong background in software engineering with hands-on experience building and deploying AI/ML models end to end. I work comfortably across data preparation, model training, evaluation, and integration into production systems. My experience includes using Python, machine learning frameworks, and cloud-based tools to solve real-world problems, with a focus on writing efficient, maintainable code and delivering practical results rather than academic experiments.

## SKILLS

- **Machine Learning (Supervised & Unsupervised)**
- **Python (NumPy, Pandas, Scikit-learn)**
- **TensorFlow / Keras**
- **Large Language Models (LLMs)**
- **Data Preprocessing & Feature Engineering**
- **API Development (FastAPI / REST APIs)**
- **Deep Learning (Neural Networks, CNNs, RNNs)**
- **PyTorch**
- **Natural Language Processing (NLP)**
- **Model Training, Evaluation & Optimization**
- **SQL & Data Querying**
- **MLOps Fundamentals (Model Deployment, Monitoring)**

## WORK HISTORY

November 2025 - January 2026

**AI Developer, Project - SkyLink: Multi-modal AI Agent**, Oak Park, IL

SkyLink: Multi-modal AI Airline Agent

An enterprise-grade customer support agent built with **Gemini 1.5 Flash** and **Streamlit**. This project demonstrates an agentic workflow capable of processing text and images while executing real-world tools via function calling.

Key Features

- **Multi-modal Perception:** Users can upload photos of baggage tags or boarding passes. The agent uses computer vision to extract PNR codes and flight numbers.
- **Autonomous Function Calling:** The agent determines when to call internal Python tools (e.g., track\_baggage, get\_flight\_status) based on user intent.
- **Proactive System Instructions:** Hard-coded professional personas to ensure brand-compliant interactions.

 Tech Stack

- **Language:** Python 3.10+
- **AI Orchestration:** Google Gemini API (1.5 Flash)
- **UI Framework:** Streamlit
- **IDE:** PyCharm

October 2025 - December 2025

**AI Developer, Project - AI Brochure Generator SaaS**, Oak Park, IL

AI Brochure Generator SaaS

A full-stack AI application that transforms any company website into a high-quality marketing brochure in minutes. Built with a robust Python backend and integrated with cutting-edge LLMs and payment processing.

Features

- **Web Scraping:** Utilizes Playwright to deep-scrape company data and service information.
- **AI Copywriting:** Leverages GPT-4o to transform raw website data into persuasive marketing copy.
- **PDF Generation:** Automatically formats and generates professional brochures using FPDF.
- **Stripe Integration:** Secure \$15 payment gateway for brochure generation.
- **Production-Ready:** Served via Nginx and Gunicorn for high performance and stability.

 Tech Stack

- **Backend:** Python (Flask)
- **AI Model:** OpenAI GPT-4o
- **Scraper:** Playwright (Chromium)
- **Payment:** Stripe API
- **Server:** Nginx + Gunicorn
- **OS:** Linux (Ubuntu/WSL2)

August 2025 - October 2025

**AI Developer, Project - Enterprise RAG System**, Oak Park, IL

## Enterprise-Grade RAG System

An end-to-end Retrieval-Augmented Generation (RAG) system built with **Python**, **Flask**, and **LangChain**. This application allows users to upload PDF documents and query them using OpenAI's GPT-4o model with local FAISS vector storage.

### Features

- **PDF Ingestion:** Uses PyPDFLoader to parse documents.
- **Vector Storage:** Local FAISS index for high-speed similarity search.
- **RAG Chain:** Implements RetrievalQA for context-aware answering.
- **Modern UI:** Dark-mode enterprise dashboard with real-time feedback.

### Tech Stack

- **Backend:** Flask (Python)
- **AI Framework:** LangChain
- **Embeddings:** OpenAI text-embedding-3-small
- **LLM:** OpenAI gpt-4o
- **Database:** FAISS (Facebook AI Similarity Search)

July 2025 - August 2025

## **MLOPs Developer, Project - Anomaly Detection Pipeline**, Oak Park, IL

Real-Time Streaming Anomaly Detection Pipeline      Project Overview

This project is a real-time monitoring system designed to detect system performance anomalies as they happen. It features a custom-built data producer, an unsupervised machine learning engine, and a live-updating web dashboard.

### Tech Stack

- **Languages:** Python 3.11, Bash
- **ML Framework:** Scikit-Learn (Isolation Forest)
- **Backend:** Flask (RESTful API)
- **Frontend:** HTML5, CSS3, Chart.js
- **DevOps:** Docker, Docker Compose

### Architecture