Ann Naser Nabil

Automation Engineer | AI & Data Systems

ann.n.nabil@gmail.com • github.com/AnnNaserNabil • nabil.is-a.dev

+8801748-567125 • Dhaka, Bangladesh

Work Experiences

Khub Soja — Dhaka, Bangladesh

Automation Operation Specialist — *Oct 2024 - Present*

- Designed and maintained 20+ automation workflows using n8n, integrating 10+ APIs and webhooks to streamline operational processes and reduce manual workload by 60%.
- Built Gmail automation systems for automated notifications, workflow-based communication, and internal alerts across operational pipelines.
- Implemented social media automation pipelines for scheduled posting, comment and message automation, data collection, and engagement tracking.
- Developed automated spreadsheet workflows enabling real-time data synchronization, reporting, and operational analytics.
- Created event-driven automation processes connecting multiple platforms and services to improve efficiency and data flow across teams.

Somikoron AI — Part-time | Remote | NY, USA

Data Science Intern — *Jan 2024 – July 2024*

- Designed and implemented an NLP-based news recommendation system using spaCy and NLTK, processing 50,000+ articles and boosting user retention by 20%
- Built automated real-time data extraction pipeline with Python and SQL, covering 50+ countries, reducing manual processing time by 75%
- Integrated AI-driven recommendation engine into existing infrastructure using FastAPI, improving system performance and increasing daily active users by 100%
- Conducted A/B testing to optimize model accuracy, enhancing content delivery efficiency by 15%

Technical Skills

- Programming Languages: Python, SQL, Bash
- Machine Learning & AI: NLP, Predictive Modeling, Deep Learning, TensorFlow, PyTorch, Scikit-Learn, RAG, Agentic ai
- Automation & Integration: n8n, APIs, Webhooks, Workflow Automation, Event-Driven Systems, Email Automation, Social Media Automation
- Tools & Technologies: Git, JupyterLab, Flask, Streamlit, Render, Docker, Kaggle, Colab, Spyder, PyCharm,
- Databases: PostgreSQL, MySQL, SQLite

Projects

KOKORO — AI Companion System with Long-Term Memory *Feb 2026 – Present*

- Developed a **production-ready CLI AI assistant** with long-term memory using Python, DuckDB, and vector embeddings.
- Designed a **hybrid RAG memory system** combining vector search and keyword retrieval for contextual conversation recall.
- Implemented **multi-LLM integration** supporting Anthropic Claude, OpenAI GPT, Google Gemini, and local models via API-based architecture.
- Built **background automation agents** for nightly, weekly, and monthly analysis of conversation data using scheduled workflows.
- Engineered a **modular architecture** including conversation engine, memory system, LLM providers, and CLI interface with rich terminal UI.

World Builder Engine — Autonomous AI World Generation System *Feb 2026 – Present*

- Developed an **autonomous multi-agent system** that generates a complete fantasy world including maps, characters, factions, and economic systems.
- Designed **5 specialized AI agents** (LoreSmith, Cartographer, Chronicler, CharacterWeaver, EconomyOracle) to independently generate structured world data.
- Built an **interactive web platform using React, TypeScript, and Vite** with dynamic visualizations for maps, timelines, and character relationship networks.
- Implemented **data generation pipelines** producing structured JSON datasets for geography, history, characters, and economic simulations.
- Created advanced **data visualizations using D3.js and force-directed graphs** to display character relationships, trade routes, and regional data.

ML Model Visualizer — Machine Learning Architecture Visualization Platform – **Full-Stack ML Engineering Project | Python, FastAPI, React.** **Jan 2026 - Present**

- Developed a **web platform for visualizing machine learning model architectures** with interactive graph-based exploration of layers, parameters, and workflows.
- Built a **FastAPI backend** supporting model parsing, visualization services, and secure file processing for multiple ML frameworks.
- Implemented **interactive frontend visualizations using React, D3.js, and React Flow** to display model structures and execution graphs.
- Designed **asynchronous processing pipelines using Celery and Redis** for background model analysis and processing tasks.
- Containerized the platform using **Docker, Nginx, and Redis**, enabling scalable deployment and microservice-style architecture.

Publications

Comparative Analysis of Tiny LLMs for Bangla Hate Speech and Emotion Detection Across Multiple Datasets

Ongoing

Education

Master of Science (Appearing) Nov 2024 – June 2025 (Expected)
Dept. of Economics, Jahangirnagar University
Relevant Coursework: Health Economics, Political Economy, Advanced Macroeconomics, Advanced Microeconomics

Bachelor of Science Feb 2018 – Oct 2024
Dept. of Economics, Jahangirnagar University
Relevant Coursework: Econometrics, Statistical Analysis, Research Methodology

Bachelor of Science (Unfinished) Feb 2017 – Dec 2017
Dept. of Physics, Shahjalal University of Science and Technology
Completed Coursework: Advanced Mathematics, Classical Mechanics, Thermodynamics, Waves and Oscillations, Physics Laboratory