

MOBINA BABARASHANI

AI Engineer | M.Sc. Artificial Intelligence Student

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KEY HIGHLIGHTS

- M.Sc. AI student building practical projects in API orchestration, RAG pipelines, ML analytics, and workflow automation.
- Strong Python, Linux, and SQL foundation; able to turn business problems into working technical prototypes and documented workflows.

TECHNICAL SKILLS

Category	Skills
Systems & Infrastructure	Linux (LPIC-1 level, command line, troubleshooting basics) Networking fundamentals (TCP/IP, DNS, connectivity diagnostics) Docker (basic familiarity)
Database	SQL (SELECT, JOIN, filtering, aggregation) MySQL (basic usage, querying, data inspection)
Programming & Tools	Python FastAPI REST APIs Git/GitHub Postman n8n workflow automation Telegram Bot API Google Sheets integration OpenRouter API integration REST-based service orchestration
Data & AI	Pandas, NumPy machine learning exposure (scikit-learn) RAG pipelines embeddings and vector search (ChromaDB) LLM-based workflow design

PROJECTS

AI Operations Workflow Agent: RAG + n8n Automation

Portfolio automation project connecting Telegram, n8n, FastAPI, ChromaDB, OpenRouter, and Google Sheets into one working AI workflow.

- Telegram-to-workflow intelligence** – Orchestrated n8n, REST APIs, Docker, and FastAPI to route messages through a knowledge-backed pipeline.
- Grounded RAG answers** – Indexed a Markdown knowledge base in ChromaDB and used OpenRouter models for controlled LLM responses.
- Decision logging** – Added confidence and policy flags, tracking IDs, Google Sheets records, screenshots, tests, and setup documentation.

Anticipate & Act: Customer Retention Intelligence

End-to-end churn prediction that tells teams not just who will leave, but who to act on first.

- Prioritized retention lists** – Ranks customers by churn risk so teams focus where ROI is highest.
- Actionable risk segments** – Translates predictions into clear next steps such as immediate outreach or protect-only.
- Live interactive tool** – Built with Streamlit; upload a customer file and receive a ranked list in seconds.

Wind Turbine Performance Analytics

- Machine learning case study using wind turbine SCADA data to predict power output and convert underperformance gaps into operational insight.*
- Industrial performance monitoring** – Compared actual generation with expected turbine output to flag possible underperformance.
- Business KPIs** – Estimated actual energy, theoretical energy, capacity factor proxy, and lost-energy proxy for maintenance discussions.
- Model-driven diagnostics** – Compared Linear Regression, Random Forest, and Gradient Boosting; best model reached R^2 0.9858 and MAE 75.41 kW.

WORK EXPERIENCE

Technical Specialist (R&D) — Pichka Industrial Group | Jul 2023 – Aug 2024

- Worked with CRM and structured internal data to follow up business records and support operational reporting.
- Prepared concise documentation for internal workflows, website launch activities, and cross-functional handoffs.
- Coordinated requirements between technical and business stakeholders; proposed Python-based automation ideas for repetitive office workflows.

Technical Intern – Precision Measurement & Calibration | Laksar Company | Summer 2022

- Assisted calibration and measurement processes, investigated result inconsistencies, and documented technical findings.

EDUCATION

• M.Sc. in Artificial Intelligence (Ongoing)

University of Science & Culture, Tehran — GPA: 18.90/20 | 2025 – Present

• B.Sc. in Mechanical Engineering

Imam Khomeini International University — GPA: 16.02/20 | 2019 – 2023

SELECTED CERTIFICATIONS & TRAINING

- LPIC-1 (101–102) & Linux Essentials — Tehran Institute of Technology (2023)
- CompTIA Network+ — MFT (2023); Network understanding — Maktabkhooneh
- FastAPI for LLM Applications (2026, currently enrolled);
- Web Development Bootcamp — Dr. Angela Yu, Udemy (2024–2025)
- Python Programming; SoloLearn -maktabkhooneh (2023)
- Data Analysis with Pandas — Kaggle (2024);
- Git & GitHub Fundamentals - Maktabkhooneh

HONORS & ACHIEVEMENTS

- **Honors:** 1st Place (Phase 2) & 2nd Place (Phase 1) — First National Shahid Babaei Event, Industrial Automation Field, Iran's National Elites Foundation.

LANGUAGES

- **English:** Upper-Intermediate / Professional Working Proficiency; able to read technical documentation, use English resources effectively, and communicate with international teams.

RECOMMENDATION

- Professional recommendation letter available from Pichka Industrial Group upon request.