Shorouk Sayed Ahmed

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Summary

AI-focused Computer Science student at Cairo University with hands-on experience in machine learning deployment, full-stack development, and automation testing. Built and deployed ML models at Samsung Innovation Campus and developed automated test suites at QESTIT Group. Currently teaching ML at 180 Daraga while building full-stack features with React, Node.js, and FastAPI.

Education

B.Sc. in Artificial Intelligence | Cairo University, Faculty of Computers and AI ***2023 – 2027***
Grade: Very Good

Technical Skills

Python · C++ · Java · Dart · JavaScript · Scikit-learn · TensorFlow/Keras · Pandas · NumPy · NLP · LLMs · RAG · Prompt Engineering · CNNs · RNNs · React.js · React Native · Flutter · TailwindCSS · HTML5/CSS3 · FastAPI · Node.js · Express · Django · REST APIs · JWT · Docker · SQL · Playwright · Selenium · POM · Performance Testing · Secure Code Review · CI/CD · Power BI

Experience

Teaching Assistant – Machine Learning | 180 Daraga ***Apr 2026 – Present***

- Supported ML curriculum delivery, guiding 10+ students through practical exercises in model development and evaluation.
- Reviewed student code for quality and correctness, providing structured feedback to improve learning outcomes.

Automation & Security Intern | QESTIT Group ***Jan 2026 – Feb 2026***

- Developed 2 automated test suites in Playwright (TS) and Selenium (JS) using a 3-layer POM architecture across registration, login, and transfer flows.
- Integrated CI/CD pipeline via GitHub Actions and implemented auto-screenshot on failure to accelerate debugging.
- Conducted secure code reviews and performance audits, identifying key vulnerabilities and bottlenecks.

AI/ML Intern | Samsung Innovation Campus (SIC) ***Aug 2025 – Dec 2025***

- Performed EDA and data cleaning with NumPy/Pandas; built interactive Power BI and Tableau dashboards.
- Developed supervised and unsupervised ML models including Regression, SVM, Random Forests, K-Means, and DBSCAN.
- Implemented CNNs for image tasks and RNNs for time-series; explored LLMs, RAG, and Prompt Engineering.
- Deployed models via Streamlit/Gradio, tracked experiments with MLflow, and built agentic workflows with Make/n8n.

Technical Member | 180 Daraga ***Dec 2024 – Present***

- Completed a **React**, **React Native**, and **Node.js** roadmap, delivering core web and mobile features.
- Integrated backend APIs and responsive UIs, improving system performance by **40%**.

Additional Experience **GitHub**

- Codeforces handle Rooka_ | +300 problems solved across Codeforces, LeetCode, and VJudge
- Documented 120+ solutions in C++, covering implementation, greedy, data structures, and dynamic programming

Projects

1. Tammeny: AI-Powered Healthcare Platform **GitHub**

- Architected a platform of 6 independent microservices covering 3 AI capabilities: X-ray analysis, RAG chatbot, and OCR, each exposed via dedicated FastAPI endpoints.
- Built a RAG chatbot with LangChain supporting PDF ingestion for contextual medical Q&A, integrated with a Streamlit frontend across 2 interfaces (web UI + HTML chat).

2. Pneumonia Detection from Chest X-Rays **GitHub**

- Implemented a 3-phase study comparing classical ML (LBP+HOG, Gradient Boosting), CNNs, and transfer learning (ResNet50, VGG16, EfficientNetB0) on 5,856 chest X-rays.
- Fine-tuned a Vision Transformer (ViT) with attention map visualization for interpretability; best result: ResNet50 at 95.19% accuracy, 0.9892 ROC-AUC.

3. Wasfa – Recipe Finder Website **GitHub**

- Built a full-stack recipe platform with Django and SQLite, separating auth/profile logic from recipe discovery for clean architecture.
- Designed a responsive HTML5/CSS3 frontend and implemented secure relational data modeling for user-generated content.

4. Car Price Analysis & Market Segmentation **GitHub**

- Analyzed 11,914 vehicles via EDA; found strong HP-to-price correlation (r=0.7) and a bimodal market structure.
- Cleaned data, removed 1,332 duplicates, built Power BI dashboards, and delivered marketing strategy recommendations.

5. Bike Sharing Demand Prediction **GitHub**

- Tested 9+ ML algorithms and tuned LightGBM via GridSearchCV to predict hourly bike rental demand.
- Engineered temporal features; identified registered users and temperature as the top demand drivers, informing operational recommendations.