# ASSEM ELQERSH

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### **SUMMARY**

Fourth-year undergraduate student majoring in Computer Science Engineering at Egypt-Japan University, expected to graduate in 2026. Skilled in computer vision and machine learning, with proficiency in Python. Enthusiastic about developing and deploying vision-based AI solutions for real-world applications. Currently gaining hands-on experience in advanced deep learning techniques, aiming to apply skills to impactful projects and continue learning in a collaborative environment.

### **EDUCATION**

# Bachelor of Computer Science Engineering, Egypt-Japan University

Expected 2026

Relevant Coursework: Numerical Analysis, Algorithms, Data Structures, Computer Organization, Embedded Systems, and Advanced Programming.

#### **SKILLS**

Technical Skills: Machine Learning, Computer Vision, Data Visualization, Problem Solving, Version Control (Git), Web Scraping

Soft Skills: Communication, Team Working, Leadership, Research, Forecasting

Programming Languages: Python, C, C++, Java, Assembly

#### EXPERIENCE

Internship Aug 2024 - Oct 2024

NeuronetiX (Remotely)

- Focused on data cleaning, preprocessing, and feature engineering.
- Gained hands-on experience in Machine Learning by working on real-world projects.
- Participated in live hackathons to sharpen collaboration and problem-solving skills.

Internship Aug 2024 - Sep 2024

Mindset (Remote)

- Developed foundational knowledge in machine learning and deep learning, including CNNs and RNNs.
- Conducted statistical analysis and applied data visualization techniques.
- Gained hands-on experience in Python programming, data manipulation using Pandas and NumPy.

Internship Aug 2024 - Sep 2024

Creativa Hub Alexandria (Onsite)

- Focused on data cleaning, preprocessing, and feature engineering.
- Learned data manipulation and time series analysis using Python's libraries in a hands-on training environment.
- Built simple data science models to reinforce understanding.

## **PROJECTS**

# MedFlow: AI Medical Assistance System (View)

- Developed an AI-driven platform for medical diagnostics combining symptom assessment chatbot, X-ray image analysis, and clinical decision support
- Implemented deep learning models for detection in X-rays, including VDSR and SRGAN for image enhancement

## NewsLies: Arabic Fake News Detection (View)

- Built an advanced Arabic fake news detection model using LSTM and AraBERT
- Leveraged the Arabic Fake News Dataset (AFND) to classify news articles as credible, not credible, or undecided
- Implemented preprocessing pipeline and evaluation framework using TensorFlow

## Sign-to-Text Translation System (View)

- Created a web application that converts Arabic sign language gestures into text in real-time
- Implemented hand gesture tracking with MediaPipe and developed ML model for sign language recognition

## Face Recognition System (View)

- Developed a computer vision project that identifies and matches faces in images using OpenCV and face\_recognition
- Created web interface for detecting faces and comparing them to a database of known individuals
- Implemented functionality to add new faces for future recognition

## Personal Assistant (View)

- Built a voice-controlled Python application that functions as a digital helper
- Implemented speech recognition to perform web searches, play videos, send messages, and manage system functions
- Added features for weather updates, file creation, and hands-free system control

## Object Detection Applications (View)

- Developed browser-based applications using TensorFlow.js for real-time object detection
- Created implementations for both CDN-based and Node.js environments
- Integrated multiple detection models including COCO-SSD and BlazeFace for various object recognition tasks

## RoboticsProjectsHub (View)

- Created an open-source hub for diverse robotics projects including pathfinding algorithms and control systems
- Developed simulations for testing and validating robotics and computer vision concepts

#### VOLUNTEERING

Treasurer Oct 2024 – Present

IEEE EJUST Computer Society Student Branch Chapter

- Managed financial operations for the student branch, including budgeting, expense tracking, and fundraising efforts.
- Supported the organization of technical workshops, seminars, and collaborative projects focused on computer science advancements.
- Ensured the financial sustainability of events, securing resources and sponsorships while maintaining transparent financial reports.

## IEEE CS SYP TechX Ambassador

Jan 2025 - Present

IEEE Computer Society Student and Young Professionals (SYP)

- Act as a liaison between IEEE CS headquarters and local student/youth communities to promote TechX initiatives.
- Organized and promoted IEEE CS TechX events, workshops, and hackathons, driving participation from over 200 students and young professionals.
- Fostered a global network of peers by coordinating cross-university collaborations and virtual meetups.