

Othman Shbeir

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Summary

Computer Science Valedictorian and Teaching Assistant with a strong foundation in Artificial Intelligence, Computer Vision, and Data Science. Experienced in designing machine learning models, developing intelligent systems, and mentoring students in advanced programming. Awarded multiple distinctions for academic excellence, research potential, and community service. Committed to impactful, human-centered technology.

Research Interests

- Machine Learning and Artificial Intelligence
- Large Language Models and Natural Language Processing
- Computer Vision and Image Recognition
- Data Analytics and Predictive Modeling
- Recommender Systems and Personalization
- Applied AI in Education, Media, and Healthcare

Education

Islamic University of Gaza — B.Sc. in Computer Science Sep 2019 – Jul 2025
Valedictorian, GPA: 95.34% (Ranked 1st in cohort)
Thesis: *HarmOni: Harmonizing Media and Social Experience*
Key Achievements:

- Developed HarmOni, an AI-powered multimedia synchronization and recommendation system integrating content-based filtering, collaborative filtering (SVD), and popularity-based ranking.
- Earned Valedictorian distinction for consistent top academic performance across all semesters.
- Coursework: Artificial Intelligence, Machine Learning, Data Science, Algorithms, Database Systems, Software Engineering, Computer Vision, Cloud Computing.

Amideast Access Alumni Program Dec 2017 – Aug 2019
English Language and Leadership Scholarship
Key Achievements:

- Champion, Climate Thinkathon (2023) — led team *ReUseIt* to first place with a sustainability-focused solution for waste reduction and reuse culture.
- Strengthened academic English (C1 equivalent) and leadership through community engagement.

Research & Academic Projects

HarmOni (Graduation Thesis Project) Sep 2022 – Jun 2023
AI-driven multimedia platform integrating social interaction and intelligent recommendation.
Contributions:

- Built a hybrid recommendation system (content-based, SVD collaborative filtering, popularity signals).

- Implemented synchronized playback with WebSockets and integrated chat for shared experiences.
- Used LLMs for filename normalization; enriched metadata via TMDB and MyAnimeList APIs.
- Deployed modular microservices (Flask, Docker) and backend (NestJS, MongoDB); CI/CD and Agile practices.

Student Grade Forecaster (Udacity Hackathon — 6th Place)

Jun 2023

Predictive ML model to flag at-risk students for early intervention.

Contributions:

- Built supervised models in Python (scikit-learn) with Pandas/NumPy pipelines.
- Evaluated models with accuracy/recall; designed dashboard for insights and educator actions.

Bikeshare Data Analysis (Udacity)

Apr 2023

Exploratory data analysis of bikeshare usage across cities.

Contributions:

- EDA with Pandas, NumPy, Matplotlib to identify seasonality and demand patterns.
- Derived insights on trip duration, peak times, and user segments.

Sakila SQL Database Analysis (Udacity)

May 2023

Business intelligence from a DVD rental dataset.

Contributions:

- Designed optimized SQL for customer segmentation, sales trends, store performance.
- Built interactive Power BI dashboards for decision support.

Teaching Experience

Teaching Assistant — Programming 3 Lab, Islamic University of Gaza Jul 2025 – Present

Advanced Java (JavaFX, Streams & Functional Programming, Spring, Multithreading)

Responsibilities:

- Led weekly labs on GUI development (JavaFX), functional programming (Streams), enterprise apps (Spring), and concurrency (Multithreading).
- Mentored 150+ students with code reviews, problem-solving workshops, and one-on-one guidance.
- Co-designed assignments, graded projects, and prepared supplementary materials.

Research & Industry Experience

AI Engineer Intern — AURA for Integrated Solutions

Jun 2023 – Sep 2023

Applied ML and computer vision to real-world projects.

Contributions:

- Implemented CV pipelines (PyTorch/TensorFlow) for detection and recognition tasks; used YOLO and classifiers.
- Contributed to 5+ large-scale AI projects; collaborated with engineers to deliver production-ready solutions.
- Assisted with deployment considerations (performance, scalability) and integration with downstream systems.

Certifications

- **Data Science Nanodegree** — Udacity Sep 2023
Data wrangling, EDA, statistical modeling, machine learning, and deployment.
- **Google IT Automation with Python Professional Certificate** — Coursera Mar 2023
Python scripting, Git, troubleshooting, automation, configuration management.
- **Google Project Management Specialization** — Coursera Dec 2022
Agile frameworks, planning, stakeholder communication, risk and change management.

Honors & Awards

- **Valedictorian, Computer Science** — Islamic University of Gaza Jul 2025
Graduated with the highest GPA (95.34%); recognized for consistent academic excellence.
- **6th Place, Hackathon** — *Student Grade Forecaster (Udacity)* Sep 2023
Built ML pipeline for early student risk detection; presented actionable insights.
- **Champion, Climate Thinkathon** — Amideast & VTech Road Jul 2023
Led team *ReUseIt* to first place with a reuse- and waste-reduction solution.
- **Access Alumni Leadership Recognition** — Amideast 2019
- **Academic Distinctions** — Islamic University of Gaza 2019–2025

Service & Volunteer Work

- Event Coordinator** — **Ranteesi Hospital Fun Day** Jun 2019
Organized a recreational event for children with cancer; coordinated logistics, activities, and volunteers to support patients and families.
- IT Support Volunteer** — **Nasser Hospital** Jun 2019 – Jul 2019
Provided technical assistance (hardware/software troubleshooting, basic maintenance) to ensure smooth healthcare operations.
- Operations Supervisor** — **Amideast Community Fun Day** Jul 2019
Managed volunteers and operations for a large community event; ensured inclusive, well-run activities.

Skills

Programming: Python, Java, JavaScript, C, C++, SQL
Machine Learning Frameworks: PyTorch, TensorFlow/Keras, YOLO, HuggingFace Transformers
Data Science Tools: Pandas, NumPy, Power BI, Tableau, Excel
Development Frameworks: Angular, React, Node.js, Nest.js, Spring, JavaFX
Miscellaneous: Git, Docker, Linux, L^AT_EX, Cloud (AWS, Google Cloud)
Soft Skills: Leadership, Teaching, Academic Writing, Teamwork, Communication, Problem-Solving

Languages

Arabic: Native proficiency
English: Professional working proficiency (C1 equivalent; Amideast Access)