

CURRICULUM VITAE

WADEE ABDULHAFIZ ABDULAZIZ NASHIR ALQUBATY



Wadee A. Nashir

Assistant Professor |

AI, Arabic NLP & Knowledge Engineering |
Data Science

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GitHub:

<https://github.com/NoorBayan>

Google Scholar:

[citations?user=QprlyeEAAAAJ&hl](https://scholar.google.com/citations?user=QprlyeEAAAAJ&hl)

Professional Summary

Assistant Professor of Computer Science and AI Consultant with a Ph.D. in Deep Learning and Arabic Natural Language Processing (NLP). Brings 15+ years of academic and leadership experience, including leading quality assurance and accreditation initiatives (SER) and designing a B.Sc. program in Artificial Intelligence.

Developed 20+ open-source AI systems, large-scale Arabic corpora, and knowledge graph platforms for classical and Islamic texts. Combines expertise in AI research, curriculum development (CLO/PLO alignment), and applied data science solutions to advance innovation in AI-driven education and research.

Education

2020 - 10	Ph.D. in Computer Science (Excellent) <i>University of Science and Technology, 2020</i> <i>Dissertation: A Framework for Classical Arabic Parsing Using Deep Learning</i>
2012 - 09	M.Sc. in Computer Information Systems (Excellent) <i>University of Science and Technology, 2012</i> <i>Thesis: An Object-Relational Approach for Modeling and Analysis of Decision Tree Techniques</i>
2005 - 10	B.Sc. in Computer Science (Very Good) <i>University of Science and Technology, 2005</i> <i>Graduation Project: ERP Accounting System</i>
2004 - 08	B.Sc. in Accounting <i>Taiz University, 2004</i> <i>Completed in parallel with B.Sc. in Computer Science</i>
2000 - 03	Diploma in Arabic Language (Excellent) <i>Dar Al-Quran Institute, 2000</i> <i>Focused on classical Arabic grammar and linguistic foundations</i>

Research Interests

Arabic NLP
Classical Arabic
Islamic Texts
Knowledge Graphs
Ontology Engineering
Arabic Corpora
Semantic Web
Machine Learning
Data Science
Knowledge Engineering

- Arabic Natural Language Processing (NLP), with emphasis on Classical Arabic texts (Qur'an, Hadith, Seerah, Fiqh, and Arabic poetry)
- Semantic and Computational Modeling of Arabic and Islamic Textual Knowledge
- Knowledge Graph Construction and Ontology Engineering for complex linguistic and jurisprudential domains
- Large-scale Arabic Corpus Development, Annotation, and Resource Engineering
- Semantic Web Technologies for knowledge integration, querying, and automated reasoning
- Machine Learning and Data Science for advanced text analytics and information extraction
- Data and Knowledge Engineering for structuring unstructured textual data into scalable graph-based knowledge systems

Academic Experience

Teaching:

AI, NLP, Data Science

Courses:

ML, DL, NLP, DBA

Academic:

Supervision, Curriculum

Engagement:

Internships, Training

Assistant Professor of Computer Science

University of Science and Technology | 2006–Present

- Deliver undergraduate and postgraduate teaching across **Artificial Intelligence, Natural Language Processing, Data Science, and Data Analytics**
- Lead and teach specialized courses including **NLP, Machine Learning, Deep Learning, Data Mining, Data Warehousing, Business Intelligence, and Software Engineering**
- Supervise undergraduate and master's research projects in **AI, NLP, and data-driven systems**, with focus on applied and research-oriented outcomes
- Mentor senior students in **industry internships** and coordinate field training programs
- Contribute to **curriculum design, program development, and course specification** across Computer Science, Software Engineering, and emerging AI programs
- Design and continuously update advanced courses (e.g., **NLP, ML, DL**) to align with current research and industry trends

Lecturer / Teaching Assistant / Research Assistant

University of Science and Technology | 2006–(Earlier Roles within same institution)

- Progressed through academic ranks, contributing to **teaching, research, and academic development**

- Supported delivery of core Computer Science and Software Engineering courses
 - Participated in **student supervision and academic mentoring**
 - Contributed to early-stage **research activities and departmental initiatives**
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Administrative & Leadership Experience

Academic Leadership

Quality Assurance

Accreditation (SER)

AI Program Design

Curriculum Development

Data-Driven QA

Software Engineering

AI & Data Solutions

Head of Quality Assurance and Accreditation Unit

Faculty of Computing and Information Technology, University of Science and Technology

2014 – 2023

2025 – Present

- Lead faculty-wide **quality assurance and accreditation strategy**, ensuring alignment with national and international academic standards
 - Directed the successful accreditation of the **Master of Computing program**, including full preparation of the Self-Evaluation Report (SER) and evidence portfolio
 - Authored the **strategic framework and academic blueprint** for establishing the B.Sc. in Artificial Intelligence program
 - Oversaw comprehensive **curriculum development and alignment** across all programs (AI, Software Engineering, Cybersecurity, IT, Information Systems), ensuring precise mapping of CLOs to PLOs
 - Designed and implemented **data-driven QA systems**, including KPI frameworks, automated evaluation tools, and academic performance analytics
 - Established a centralized **digital academic repository** for accreditation, course specifications, and audit processes, significantly improving efficiency and compliance
 - Delivered training programs and workshops on **quality standards, modern pedagogy, research practices, and academic integrity**
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Head of Software Engineering Program

Faculty of Computing and Information Technology, University of Science and Technology

2015 – 2020

- Managed academic and administrative operations of the Software Engineering program, including **curriculum planning, scheduling, and academic advising**
- Led continuous improvement initiatives aligned with **industry needs and accreditation standards**

- Supervised senior capstone projects with focus on **software engineering best practices and applied solutions**
- Enhanced student outcomes through **academic mentoring, problem resolution, and program-level performance monitoring**
- Contributed to program development within a broader transition toward **AI and data-driven curricula**

AI Solutions Consultant & Senior System Analyst

Matrix Company | Taiz, Yemen. 2021 – 2025

- Designed and developed **AI-driven and data-centric solutions** for real-world applications across multiple domains
 - Led **system analysis, requirements engineering, and solution architecture** for enterprise systems
 - Applied **data science techniques**, including data analysis, feature engineering, and predictive modeling, to support decision-making and intelligent automation
 - Built data pipelines and processing workflows for **structured and unstructured data**, enabling scalable analytics solutions
 - Bridged business requirements with technical implementation, delivering **efficient, scalable, and production-ready systems**
 - Collaborated with cross-functional teams to deliver **end-to-end software and analytics solutions**
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Research Experience

Arabic NLP Research

Classical Arabic

Qur'anic Analysis

Knowledge Graphs

Corpus Engineering

Deep Learning Models

Semantic Analysis

Computational Humanities

Lead Researcher – Arabic NLP & Knowledge Engineering

Independent & Institutional Research | 2024–Present

- Lead the design and development of a **large-scale research ecosystem** for Arabic Natural Language Processing, focusing on Classical Arabic and Islamic texts (Qur'an, Hadith, Seerah, Fiqh, and Arabic poetry)
- Develop **novel computational frameworks** for semantic, rhetorical, and pragmatic analysis of Qur'anic and literary texts (e.g., metaphor, simile, discourse structures)
- Construct and curate **large-scale annotated datasets**, including:
 - Qur'anic rhetorical datasets (e.g., *Burhan, Majaz, Sima*)
 - Arabic poetry corpora (e.g., *Diwan, Mana, Miraya*)
 - Linguistic resources (e.g., Quranic Treebank, prosodic datasets)
- Design and implement **deep learning and transformer-based models** for multi-label classification, semantic analysis, and information extraction
- Build **knowledge graphs and ontological systems** for modeling complex Islamic and linguistic knowledge (e.g., *Basair, Tfasir, Tabaqat*)

- Develop **reproducible research pipelines and frameworks** integrating datasets, models, and evaluation workflows (e.g., *Noor*, *QuranMetaphor*)
- Apply **spatio-temporal and network analysis** to historical and narrative data (e.g., Seerah and biographical networks)
- Contribute to bridging **classical Arabic scholarship and modern AI methodologies**, enabling new research directions in computational humanities

Publications

High-Impact Journals

IEEE Publications

Q1/Q2 Submissions

Arabic NLP Research

Corpus & Datasets

Knowledge Engineering

Publications & Research Output

Journal Articles (2025–Present)

- “**Diwan: Constructing the Largest Annotated Corpus for Arabic Poetry**,” *IEEE Access*, 2025.
- “**Maqasid: A Hybrid CNN-BiLSTM Framework for Nuanced Thematic Classification of Arabic Poetry**,” *IEEE Access*, 2025.
- “**Noor: A Pipeline Framework for Classical Arabic Parsing**,” *IEEE Access*, 2025.
- “**A Complete Multi-layered Quranic Treebank Dataset with Hybrid Syntactic Annotations**,” *Data in Brief*, 2025.

Under Review / In Press (2026)

- 8 journal papers under review in **Q1/Q2 indexed journals** (Scopus / Web of Science), focusing on:
 - Arabic NLP for Classical and Islamic texts
 - Knowledge Graph construction and semantic modeling
 - Large-scale corpus engineering and annotation

Technical Projects

Applied AI Systems

Arabic NLP Solutions

Knowledge Graph Platforms

Qur’anic AI

Poetry Intelligence

Project Portfolio:

A comprehensive collection of AI systems and platforms for Arabic NLP, knowledge engineering, and computational analysis of classical and Islamic texts. Selected AI Systems, Platforms, and Applied Projects.

GitHub: <https://github.com/NoorBayan>

AI-driven Qur’anic Analysis Systems

- Developed a suite of **AI-powered systems** for analyzing Qur’anic rhetoric and figurative language, including metaphor and simile modeling

Data Engineering Tools

Graph Analytics

Open GitHub Projects

- Implemented **multi-task and transformer-based frameworks** for semantic classification and linguistic analysis
 - Representative projects: *Quramet, Sima, Majaz, QuranMetaphor, Burhan*
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Knowledge Graph & Semantic Platforms

- Designed and implemented **knowledge graph systems** for modeling Qur'anic concepts, Tafsir, and Islamic knowledge domains
 - Built **ontology-driven platforms** linking textual sources into structured semantic networks
 - Representative projects: *Basair, Tfasir, Tabaqat, SeerahAtlas*
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Digital Qur'anic & Islamic AI Platforms

- Developed **end-to-end digital platforms** integrating text, audio, and multilingual processing for enhanced accessibility and analysis
 - Applied AI techniques for **recitation enhancement, translation, and interactive learning systems**
 - Representative projects: *Noor, Mishkat, Tarjuman, Tarteel, Ilqa*
-

Arabic Poetry Intelligence Systems

- Built advanced systems for **Arabic poetry analysis**, including thematic classification, prosody, and linguistic structure modeling
 - Integrated **probabilistic modeling and deep learning** for meter detection and poetic analysis
 - Representative projects: *Maqasid, Bohor, Frahidj, Awzan, Bayan, Nazm*
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Large-scale Data Processing & NLP Tools

- Developed reusable tools and pipelines for **Arabic text preprocessing, normalization, and large-scale data handling**
 - Designed APIs and modular systems supporting **research and production-level NLP workflows**
 - Representative projects: *Tanqeeh, Quranic, Turath*
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Spatio-Temporal & Network Analysis Systems

- Applied **graph analytics and GIS-based modeling** to historical and narrative data
 - Developed systems for transforming textual narratives into **structured temporal and relational networks**
 - Representative projects: *Seir, Amthal*
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Technical Skills

Python (Advanced)

AI & Deep Learning

Transformers (NLP)

Arabic NLP

Knowledge Graphs

Data Engineering

Corpus Development

Graph DB Systems

Open-Source Tools

Programming Languages

- **Python** (primary)
 - Experience in building scalable research pipelines, APIs, and data processing systems
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AI & Machine Learning

- **Deep Learning Frameworks:** PyTorch, TensorFlow
 - **Modeling:** CNN, RNN, BiLSTM, Transformer-based architectures
 - **Libraries & Ecosystem:** Hugging Face Transformers, Scikit-learn
 - **Tasks:** Text classification, multi-label learning, semantic analysis, information extraction
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Natural Language Processing (NLP)

- Arabic NLP (Classical & Modern Standard Arabic)
 - Text preprocessing, normalization, tokenization
 - Linguistic annotation and corpus engineering
 - **Tools & Libraries:** SpaCy, NLTK, Transformers
 - Experience with **Qur'anic, poetic, and classical Arabic text processing**
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Data Science & Data Engineering

- Data analysis and feature engineering
 - Large-scale dataset construction and annotation
 - Data pipelines for structured and unstructured data
 - Experience with scientific computing and data handling (NumPy, Pandas)
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Knowledge Engineering & Semantic Technologies

- **Knowledge Graph design and construction**
 - Ontology engineering and semantic modeling
 - Semantic data integration and representation
 - Experience with **complex textual knowledge formalization (Islamic & linguistic domains)**
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Databases & Storage Systems

- Graph databases (e.g., Neo4j or equivalent concepts)
 - Relational databases (SQL-based systems)
 - Handling large-scale textual and structured datasets
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Tools & Technologies

- Jupyter Notebook, Git, GitHub
 - API development and integration
 - Reproducible research pipelines
 - Open-source development and version control
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Certifications & Training

AI & Machine Learning

Data Science

Arabic NLP

Quality Assurance

Accreditation

Higher Education

ERP & Systems

Agile Development

Artificial Intelligence & Data Science

- **Data Science, Machine Learning, and Python Programming**
University of Science and Technology – Center for Teaching & Learning, 2023
 - **Applied Natural Language Processing (NLP) & AI Solutions Architecture**
Professional training aligned with AI consulting practice, 2022
 - **Data Analysis, Visualization, and Computational Intelligence**
Advanced workshop in modern data-driven methodologies, 2024
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Academic Quality Assurance & Higher Education

- **Academic Program & Course Specification (Quality Standards)**
Center for Teaching & Learning, 2019
 - **Learning Outcomes Measurement & Exam Quality Assurance**
Center for Teaching & Learning, 2020
 - **E-Learning & Learning Management Systems (LMS)**
Center for Teaching & Learning, 2021
 - **Academic Integrity & Plagiarism Detection (Turnitin)**
Center for Teaching & Learning, 2018
 - **Scientific Writing & High-Impact Publication**
Advanced academic training, 2022
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Professional & Industry Development

- **Enterprise Resource Planning (ERP – SAP Overview)**
Professional training in enterprise systems, 2017
 - **Agile Software Development & Project Management**
Industry-oriented training, 2018
 - **Systems Analysis & Software Architecture Design**
Advanced industry-focused training, 2019
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Awards

Award-Winning AI

Qur'anic NLP

Innovation Projects

National Recognition

Academic Leadership

Program Development

Quality Management

- **3rd Place Winner – QoranThon Competition (Maknoon Association for Quran Services)** Awarded for developing the *Noor & Bayan* AI platform, which integrates advanced computational models for Classical Arabic processing, including **morphological, syntactic, and semantic analysis**, in addition to **Qur'anic ontology construction and AI-driven content generation**
 - **Awards in National Competitions for Qur'an and Sunnah Technologies** Recognized in multiple local competitions for developing **AI-based solutions** supporting the analysis, accessibility, and digital transformation of Islamic texts
 - **Institutional Recognition – University of Science and Technology** Honored for outstanding contributions in **academic quality assurance** and leadership as **Software Engineering Program Coordinator**, including program development, accreditation support, and academic improvement initiatives
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Academic Service

Academic Service

Peer Review

Committee Leadership

Accreditation

Program Committees

Research Support

Student Affairs

Conference Organizer

Peer Review & Editorial Activities

- Reviewer for academic journals, including the **University of Science and Technology Journal**
 - Contributed to the evaluation of research manuscripts in **Computer Science and Information Technology**, supporting academic quality and publication standards
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Academic Committees & Institutional Service

- **Head, Quality Assurance and Accreditation Committee (Faculty of Computing)**
2014–2023, 2025–Present
Led faculty-level quality assurance initiatives, accreditation processes, and continuous improvement strategies
- **Head, Timetabling Committee**
2008–2018
Managed and optimized academic scheduling processes across the faculty
- **Head, Graduation Projects Committee**
2012–2015
Supervised and coordinated senior capstone projects, ensuring academic rigor and alignment with program outcomes

- **Member, Academic Development & Accreditation Committee (University Level)- 2017–2021**
Contributed to institutional academic development and accreditation policies
- **Member, Research & Scientific Development Committee- 2015–2018**
Participated in supporting research initiatives and academic development activities
- **Member, Grievance Committee 2014–2017**
Contributed to resolving academic and student-related issues within institutional frameworks

Conference Organization

- **Organizing Committee Member – Arab International Conference on Information Technology (ACIT 2012)**
University of Science and Technology, Yemen
Contributed to the planning and organization of an international academic conference in Information Technology
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Contributions / Open Science

Open-Source Projects

Arabic Datasets

Knowledge Graphs

AI Frameworks

Corpus Development

Reproducible Research

MIT / Apache Licensed

Open Research Contributions & Resources

- Developed and released **20+ open-source projects and datasets** in Arabic NLP and Islamic knowledge modeling
- Published **large-scale corpora**, including:
 - *Diwan*: one of the largest Arabic poetry datasets (~500K poems, 15M+ verses)
 - *Turath*: a comprehensive Islamic corpus (10K+ books and scholarly resources)
- Created **specialized annotated datasets** for advanced NLP tasks:
 - Qur'anic rhetoric and figurative language (*Burhan, Majaz, Sima, QuranMetaphor*)
 - Arabic poetry analysis and prosody (*Bohor, Frahidi, Awzan*)
- Designed and implemented **knowledge graphs and ontologies** for:
 - Qur'anic concepts and semantic relations (*Basair*)
 - Tafsir integration and knowledge structuring (*Tfasir*)
 - Historical and social network modeling (*Tabaqat, SeerahAtlas*)
- Developed **AI-driven frameworks and tools**, including:
 - NLP preprocessing libraries (*Tanqeeh*)

- Deep learning classification frameworks (*Maqasid*)
 - Multilingual and speech-based systems (*Mishkat, Ilqa, Tarjuman*)
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- Ensured **reproducibility and accessibility** through public repositories, documented pipelines, and open licenses (MIT, Apache 2.0, CC BY 4.0)
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References

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