

AMINE KIDANE

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EDUCATION

Khalifa University (QS Ranking - 177th)

Aug. 2019 – Jan 2024

BSc. in Computer Engineering (Track on AI), GPA: 3.96/4.0

Abu Dhabi, UAE

- 8× President's List
- Full Undergraduate International President's Scholarship (10% acceptance rate)

EXPERIENCE

Research Assistant, KU 6G Research Center

Jun. 2024 – Present

Khalifa University, PI: Prof. Azzam Mourad

Abu Dhabi, UAE

- Designed DRL- and RAG-enhanced frameworks for multimodal LLM-assisted on demand service deployment in 6G vehicular networks using conversational, visual, and sensory data under real-time constraints.
- Coordinated with cross-institutional teams on applied 6G network intelligence, LLM capabilities on microservice placement, and edge computing paradigms.
- Contributed to multiple submissions to top-tier IEEE venues including INFOCOM, TVT, VTM, CAIS, JSAC, and WiMob.

AI Software Engineer Intern

Jan. 2024 – May 2024

Rhetora.ai

Remote

- Designed an AI co-pilot sales software solution integrating automation and scheduling to streamline decision-making processes across prospecting, lead nurturing, and deal closure.

Visiting Undergraduate Researcher

May 2023 – Aug. 2023

eBrain Lab, NYU Abu Dhabi, PI: Dr. Mohammed Shafique

Abu Dhabi, UAE

- Designed a quantized hardware-aware NAS framework for autonomous robots, achieving 15% faster inference and 1.2× higher energy efficiency on embedded GPUs.

Cybersecurity Intern

Jun. 2022 – Sep. 2022

EBTIC, PI: Dr. Rasool Asal

Abu Dhabi, UAE

- Investigated solutions for defending against adversarial attacks on machine learning models in cyber-physical systems, achieving enhanced robustness with a 5.7% reduction in successful attack rates.

PUBLICATIONS

1. **[Accepted]** A. K. Ghebreziabiher, *et al.*, “On-Demand Vehicular Service Deployment in 6G: A Collaborative Large–Small LM Architecture,” submitted to *IEEE Vehicular Technology Magazine*, Jul. 2025.
2. **[Accepted]** D. Ayepah-Mensah, A. K. Ghebreziabiher, *et al.*, “AI-Native Cloud-Edge Orchestration for 6G Metaverse Networks: An LLM-Guided Multi-Agent DRL Approach,” *Complex & Intelligent Systems*, vol. 12, p. 141, 2026. doi: 10.1007/s40747-026-02249-9.
3. **[Accepted]** D. Ayepah-Mensah, A. K. Ghebreziabiher, *et al.*, “A RAG-Assisted DRL Framework for Microservices Deployment in 6G Vehicular Networks,” in *Proc. 21st Int. Conf. Wireless and Mobile Computing, Networking and Communications (WiMob)*, Marrakesh, Morocco, 2025, pp. 1–6. doi: 10.1109/WiMob66857.2025.11257559.
4. **[Accepted]** G. O. Boateng, A. K. Ghebreziabiher, *et al.*, “Towards On-Demand Metaverse Service Deployment in 6G Vehicular Networks Using Multimodal LLMs,” in *Proc. IEEE INFOCOM 2025 Workshops (INFOCOM WKSHPs)*, London, U.K., 2025, pp. 1–6. doi: 10.1109/INFOCOMWKSHPs65812.2025.11152975.
5. **[Accepted]** G. O. Boateng, A. K. Ghebreziabiher, *et al.*, “Move-LLM: Multimodal LLM-Assisted DRL Framework for On-Demand Service Deployment in 6G Vehicular Networks,” submitted to *IEEE Transactions on Vehicular Technology*, Jun. 2025.
6. D. Ayepah-Mensah, A. K. Ghebreziabiher, *et al.*, “Large Language Model-Based Trajectory Forecasting for Dependency-Aware Microservice Migration in 6G Vehicular Edge Networks,” submitted to *IEEE Journal on Selected Areas in Communications*, Nov. 2025.

7. D. Ayepah-Mensah, A. K. **Ghebzeziabihier**, *et al.*, “A Hierarchical Agentic Framework for Self-Organizing Next-Generation Wireless Networks,” submitted to *IEEE Network Magazine*, Feb. 2026.

TECHNICAL SKILLS

Languages: Python, Java, C/C#/C++, MATLAB, TypeScript, JavaScript, SQL, PHP

Frameworks: HuggingFace, OpenCV, Scikit, TensorFlow, PyTorch, Keras, QisKit, ReactJS, Django, Node

Cloud Solutions: HPC, AWS, Alibaba Cloud, RunPod, Vast.ai

Tools: Visual Studio/VS Code, Eclipse, IntelliJ IDEA, Git, MATLAB, R

Database Management: SQL, MySQL, PostgreSQL, MongoDB

Robotics: ROS (2), PX4, Navigation, Localization

PROJECTS, HACKATHONS, & AWARDS

- EDGE Pioneers 4.0 Hackathon Series 3** | *EDGE Learning and Innovation* **Oct. 2023**
• Developed an anomaly detector for high-speed printing systems using PaDiM to enhance production efficiency.
- Alibaba Cloud GenAI Hackathon 2023** | *GITEX Global InnovateFest* **Oct. 2023**
• Created ZenMate, a chatbot hosted on Alibaba Cloud using Facebook Llama 2.
• Recognized as a Sustainability Expert in GenAI for Social Good in MENA.
- NYUAD Hackathon for Social Good** | *NYU Abu Dhabi* **Apr. 2023**
• Built a quantum crop rotation optimizer for UAE agriculture, promoting Quantum Computing in the Arab world.
- 17th IEEE Software Engineering Competition** | *American University of Sharjah* **May 2023**
• Awarded Second Prize among regional participants for an innovative software engineering project.
- Electrical Impedance Tomography Image Reconstruction** | *Independent Study* **Aug. 2023 – Jan. 2024**
• Explored variational autoencoders to tackle ill-posed inverse problem in EIT image reconstruction, targeting a 5% improvement in image quality compared to SOTA models.
- Automatic Waste Segregation System** | *Final Senior Design Project* **Sep. 2022 – Sep. 2023**
• Led final Senior Design Project in developing a patented smart waste segregation system equipped with computer vision modules and mechanical actuators.
- MBZIRC Maritime Grand Challenge** | *Computer Vision* **Oct. 2022 – Jan. 2023**
• Performed complex navigation tasks in a GNSS-denied area, with the computer vision team for a heterogeneous collaboration between 2 UAVs and 4 USVs.
- Khalifa University Programming Contest** | *Khalifa University* **Nov. 2022 & Dec. 2022**
• Won First Prize twice for implementing time-constrained algorithms in a team-based programming competition.
- Musabaqat Mathematics Competition V** | *Khalifa University* **Nov. 2023**
• Placed 5th among 90 students from 4 universities in a mathematics competition.
- Open Mathematics Olympiad** | *IUHD – Turkmenistan (Remote)* **May 2022**
• Achieved Second Prize in an international mathematics competition.
- Academic Honors** | *Khalifa University* **2019 – 2023**
• Full Undergraduate International President’s Scholarship (2019).
• Golden Key International Honor Society Inductee (2020).
• President’s List in 8 out of 9 semesters.

EXTRACURRICULAR

- AI Club Cofounder** **Aug. 2023 – Dec. 2023**
• Co-founded the AI Club at Khalifa University, attracting over 250 members and organizing hackathons to showcase and raise awareness about the capabilities of LLMs.
- Techstars Innovation Bootcamp** **Feb. 2022 – Mar. 2022**
• Competed in the Techstars Innovation Bootcamp representing Khalifa University in the IP commercialization challenge.
- Peer Tutoring** **Feb. 2019 – Jun. 2021**
• Peer-tutored 150 hours in C++ and Calculus for 3 semesters and received an appreciation certification.
- Global Day Event Organizer** **Mar. 2023**
• Curated an engaging event highlighting Eritrea and its cultures and guided the presentation for maximum impact.