Hussein Termos

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EDUCATION

Bachelor of Engineering in Computer Science and Engineering | American University of Beirut | **GPA**: 4.0/4.0
- **Minor in Applied Mathematics**
- **Expected Graduation:** May 2027
- **Dean's Honor List | AUB Merit Full Tuition Scholarship | Member of the AUB Honor Society**

EXPERIENCE

Rasid | Part-Time Machine Learning Engineer & Researcher | Remote   September 2025 - Present
- Prepared a satellite imagery dataset of 2,000+ acquisitions across 70+ AOIs for atmospheric-compound detection.
- Improved sample visualization after stakeholder feedback by replacing naive RGB composites with spectral-index-based views, increasing interpretability.
- Corrected a team misconception about satellite data fetching, which redirected efforts for accurate data collection.
- Reviewed literature and reports to inform model design, dataset selection, and preprocessing using GeoPandas.
- Developed detection models and co-authored technical reports for an external partner.

GeoAI | Intern | Mansourieh, Lebanon   May 2025 - August 2025
- Researched geospatial analytics methods for multispectral and hyperspectral imagery.
- Wrote comprehensive unit tests covering implemented features.
- Developed ML pipelines for detection, segmentation, and classification tasks using NumPy for array operations.
- Took the initiative to reorganize the team's 20+ JavaScript-based evaluation scripts into a maintainable module.

American University of Beirut | Teaching Assistant | AUB, Lebanon   August 2025 - November 2025
- Led weekly lab sessions and held office hours for over 50 students, clarifying foundational programming concepts.
- Conducted revision sessions before exams to reinforce understanding and support student preparation.

PROJECTS

Tourette or Not Tourette   September 2025
- Won 1st place in a hackathon by developing a virtual microphone that filtered Tourette's vocal tics in live calls.
- Took ownership of the ML aspect of the project, including model selection, training, and evaluation.
- Gathered a dataset of over 120 labeled samples and augmented it using techniques such as sliding windows.
- Built a PyTorch-based classifier head on top of YAMNet and achieved a 0.85 F1 score when detecting audio tics.

Competitive Programming   April 2025 - Present
- Achieved a Top 3 placement at the Lebanese Collegiate Programming Contest (LCPC) and qualified for the Arab and African Collegiate Programming Championship (ACPC), demonstrating strong problem-solving skills.
- Served as Head of the CP Committee at the ACM AUB Student Chapter, organizing 4 events in my first semester.
- Coordinated between university departments and the CP community to raise $12,000 in funding for ACPC participants, displaying leadership and communication skills.
- Took on a board member role in Competitive Coders LB academy: a CP academy for high school students.

AI Journey   September 2024 - Present
- Co-founded AI Journey, an educational initiative teaching students about AI and machine learning.
- Led the "Machine Learning Fundamentals" track with sessions reaching over 40 attendees.

Trafero   June 2024 - August 2024
- Drove the development of Trafero, a platform that improves accessibility to public transportation in Lebanon, as part of the Amazon Industry Program, under mentorship from an engineer and a product manager at Amazon.
- Built a RESTful API using FastAPI and PostgreSQL, supporting structured, concurrent data interactions.
- Strengthened professional development through feedback, Git-based collaboration, and technical guidance.

SKILLS AND LANGUAGES

- **Technical Skills**: MS Office, FastAPI, C++, Python, SQL, HTML, CSS, Java, JavaScript, TypeScript, C, Linux
- **Languages**: Arabic and English