

Abdul-Aziz Al-Najjar

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Education

Carleton University, Ottawa, ON, Canada Jan 2022 – Jun 2023

Master of Engineering (MEng), Electrical and Computer Engineering, Data Science Specialization

- Cumulative GPA: **3.92/4.0**.
- Part of the Multimedia Research Group, under the supervision of Prof. Marzieh Amini

Middle East Technical University, Ankara, Turkey Feb 2017 – Jun 2021

Honor Bachelor of Science (BSc), Electrical and Electronics Engineering

- Cumulative GPA: **3.3/4.0 (Dean's Honor List - Top 5%)**

Work Experience

Research Associate Sep 2022 – Current

Carleton University - Natural Resources of Canada (NRCan), Ottawa, ON, Canada

- Conducted research in infrastructure monitoring using machine learning techniques with LiDAR datasets to classify point clouds and identify high-risk vegetation encroachment on powerlines.
- Trained advanced Neural Network models and data analysis methods to process extensive 900-million-point clouds to achieve accurate encroachment detection.
- Collaborated with cross-functional teams to align algorithms with project prerequisites, resulting in optimal performance, the preparation of two journal manuscripts, and a Master's project completion.

Teaching Assistant Sep 2022 – Jun 2023

Carleton University - Department of Information Technology, Ottawa, ON, Canada

- Collaborated with instructors to enhance Applied Deep Learning and Computer Vision course materials.
- Graded assignments and provided constructive feedback to 30+ Data Science students in different modalities.
- Improved clarity of course contents, for topics such as regression (simple, multivariate), classification (binary, multi-class, multi-label), clustering, object detection, data augmentation, and multiple deep and machine learning techniques.

Internships & Volunteer Experiences

Rebranded Group - Logistics, Board Member, Ottawa, ON, Canada Mar 2022 – Sep 2023

Muslim Student Association - Volunteer, Carleton University, Ottawa, ON, Canada Feb 2022 – Sep 2023

Problem-Solving Society - Co-founder, Logistics Director, METU, NCC, Turkey Feb 2018 – Jun 2021

KIB-TEK - Electrical Engineer (Intern), Nicosia, Cyprus Jun 2020 – Aug 2020

ACES Co. - Electronics Engineer (Intern), Riyadh, Saudi Arabia Jul 2019 – Aug 2019

Skills

- **Problem-Solving:** Utilizing data analysis, quantitative modeling, and creative strategies to address complex business challenges.
- **Project Management and Team Collaboration:** Proficient in leading and working within cross-functional teams, collaborating with academic and research teams to achieve project goals and contribute to scholarly publications.
- **Communication and Presentation Skills:** capable of simplifying technical concepts for diverse audiences and refining educational materials.
- **Adaptable and innovative**, co-founded the Problem-Solving Society, showcasing leadership and critical thinking.
- **Technical Expertise:** Expert in programming (Python, R, C/C++), database management (SQL), advanced data analytics (Pandas, Matplotlib, Seaborn, TensorFlow, Scikit-Learn, XGBoost), design (MATLAB, SPICE, CAD), and business intelligence tools (Tableau, Power BI, Excel).
- **Multilingual Proficiency:** Fluent in English and Arabic, facilitating effective communication in varied cultural settings.