Contact

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(LinkedIn)

Top Skills

dashboard development
hugging face transformers
BERT (Language Model)

Languages

Arabic (Native or Bilingual)
English (Native or Bilingual)

Honors-Awards

National Renewable Entrance
Scholarship

Hala Arar

Data Scientist | ML & NLP | Python • R • SQL | End-to-End Pipelines
Peterborough, Ontario, Canada

Summary

I recently completed the Master of Data Science program at the University of British Columbia, building on a Bachelor of Biomedical Sciences with a minor in Mathematics. My work combines machine learning, NLP, and end-to-end pipeline development, with experience applying these skills across scientific, clinical, and public-sector datasets.

During my capstone, I developed a two-stage PubMedBERT system to identify and classify protein autoregulatory mechanisms in large biomedical corpora. This included building scalable Python pipelines for data cleaning, feature engineering, model evaluation, and inference on more than two hundred fifty thousand abstracts, and creating the SOORENA Shiny application to make results searchable and accessible to both technical and non-technical users. This work led to a first-author preprint on bioRxiv.

I have experience with supervised learning, NLP, statistical modeling, experimental design, and dashboard development, and I enjoy translating complex data into clear insights. I am motivated to contribute to data science teams in a range of domains, applying practical machine learning skills to solve real problems and support informed decision making.

Experience

University of Helsinki
Data Scientist
April 2025 - Present (10 months)
Finland

• Built and fine-tuned a two-stage PubMedBERT system to detect and classify protein autoregulatory mechanisms, integrating expert-curated UniProt–PubMed training data.

• Ran large-scale inference on more than 250,000 PubMed abstracts and produced a structured, research-ready dataset used for analysis, validation, and manuscript preparation.
• Developed the production-ready SOORENA Shiny application with interactive filtering, confidence scoring, and export features to support expert review.

Park Street Dentistry
Dental Assistant
July 2023 - April 2024 (10 months)
Peterborough, Ontario, Canada

• Assisted dental professionals in providing high-quality patient care during various dental procedures.
• Managed patient communication and administrative tasks to enhance the overall patient experience.
• Maintained a clean and organized treatment environment, ensuring compliance with health and safety standards.
• Utilized data management skills to accurately maintain patient records, improving efficiency in patient care.

Trent University
Assistant Laboratory Technician
September 2022 - April 2023 (8 months)
Peterborough, Ontario, Canada

• Prepared laboratory equipment and solutions for undergraduate students, enhancing their learning experience.
• Maintained laboratory organization and cleanliness, ensuring compliance with safety standards.
• Contributed to a safe and efficient laboratory environment, fostering a culture of safety and responsibility.

Red Lobster
Server
September 2022 - November 2022 (3 months)

• Delivered exceptional guest service by managing seating, reservations, and drink preparation.
• Collaborated with the service team to create a welcoming atmosphere and enhance the overall dining experience.
• Maintained high standards of cleanliness and organization, contributing to a positive restaurant environment.

• Recognized for consistently receiving positive feedback from guests, leading to a 15% increase in repeat customers.

Ontario Federation of Anglers and Hunters
Lead Camp Counselor
June 2022 - September 2022 (4 months)
Peterborough, Ontario, Canada

• Led a team of camp counselors to deliver engaging educational outdoor programs for children.
• Instructed various outdoor activities while promoting conservation and environmental education.
• Fostered a diverse and inclusive camp environment, ensuring all children felt welcome and valued.
• Collected and recorded wildlife data, introducing children to essential data collection methods.

McDonald's
Crew Trainer
October 2018 - August 2022 (3 years 11 months)
Peterborough, Ontario, Canada

• Trained and mentored new crew members, fostering a supportive team environment.
• Managed drive-through, delivery, and kitchen operations, ensuring efficiency and quality service.
• Resolved customer complaints promptly, enhancing customer satisfaction and loyalty.

Trent University
Camp Counselor
June 2021 - September 2021 (4 months)
Peterborough, England, United Kingdom

• Led engaging outdoor programs that promoted teamwork and personal growth among campers.
• Ensured the safety and well-being of all participants through vigilant supervision and risk management.
• Developed and implemented creative activities that enhanced campers' skills and fostered a sense of community.

Education

The University of British Columbia

Master's degree, Data Science · (September 2024 - June 2025)

Trent University

Bachelor of Science - BS, Biomedical Sciences, Honours · (September
2020 - April 2024)