

# ABDARAHMANE TRAORÉ

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[Blog](#) | [GitHub](#) | [LinkedIn](#)

## EXPERIENCE

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### NB Power | AI Specialist

Moncton, Canada | 09/2021 - Present

- Led a project to develop and deploy a change detection pipeline on Nvidia Jetson devices.
- Integrated Open-Source Language Models with LangChain to facilitate browsing of company procedures in a more "human-like" manner.
- Directed the creation and deployment of a YOLO-based detection system for electric component inspection and Personal Protective Equipment (PPE) detection.

### TWO-HAT Security (Microsoft owned) | AI Research Intern

Kelowna, BC | 01/2020 - 09/2020

- Conducted research on advanced AI techniques for content moderation, proposing innovative methods for blurring sensitive material in images through semantic segmentation.
- Developed deep learning models for the automated moderation of audio and video content, enhancing content safety and compliance.

### PRIME Research Group | Research assistant

Moncton, Canada | 08/2017 - 08/2019

- Designed and led an AI-based lobster detection project, evaluating RCNNs and YOLOs for optimal speed-accuracy balance in real-world scenarios; programmed a robot for lobster manipulation and deployed the system on the edge using TensorRT on Nvidia Jetson.
- Collaborated with sports coaches for athlete performance enhancement via posture analysis, researching and benchmarking pose estimation algorithms; selected and adapted OpenPose for project needs, ensuring portability by deploying on Nvidia Jetson Nano.
- Published research papers across various domains, contributing to the broader academic and professional understanding of AI applications and advancements.

## PUBLICATIONS

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- A. Traoré and M. A. Akhloufi, "Violence Detection in Videos using Deep Recurrent and Convolutional Neural Networks," 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, ON, Canada, 2020, pp. 154-159, doi: 10.1109/SMC42975.2020.9282971.
- Traoré A., Akhloufi M.A, "2D Bidirectional Gated Recurrent Unit Convolutional Neural Networks for End-to-End Violence Detection in Videos," Image Analysis and Recognition. ICIAR 2020. Lecture Notes in Computer Science, vol 12131. Springer, Cham.

## CERTIFICATIONS

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- Deep Learning Specialization (4 certificates) - DeepLearning.AI.
- Mathematics for Machine Learning and Data Science Specialization (3 certificates) - DeepLearning.AI.
- Generative AI with Large Language Models - DeepLearning.AI.

## EDUCATION

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- **University of Moncton** Moncton, Canada  
M.Sc. Computer Science 2019 - 2021
- **University of Moncton** Moncton, Canada  
BSc Computer Science 2015 - 2019

## SKILLS

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- Programming Languages: Python, C++, SQL
- Libraries/Frameworks: Pytorch, OpenCV, Pandas, Huggingface, Matplotlib, Seaborn, Numpy
- Tools / Platforms: AWS, Compute Canada, Docker, Git, Linux
- Languages: French (Native), English (Professional Proficiency), Bambara (Native)