Mohammed Hamdan

Montreal, QC, Canada

+1 (514) 219 2291

mh2022ets@gmail.com

[[GitHub](https://github.com/MHHamdan) / [Linkedin](http://linkedin.com/in/mohammed-hamdan-b4545316a)]

SUMMARY/OBJECTIVE

I got my bachelor's and master's degrees in Computer Science (CS) from UoH and KAU, both in Saudi Arabia. Then, I am still pursuing my Ph.D. in machine learning and computer vision (ML-CV) at the University of Quebec (ETS) in Canada. In 2019, I began learning machine learning and computer vision. I have done several deep learning and data science projects during my master's and Ph.D. studies. I enjoy doing every single project in this field. I am an expert in the programming languages Python and R for machine learning and data science, and I know the basics of Java, C++, and C#. skilled machine learning engineer with expertise in NLP and computer vision. I am eager to contribute my experience to ML/CV. motivated machine learning engineer with skills in NLP and DL-based algorithms. Seeking to improve machine learning models As an ML researcher at ETS, I completed and engaged in various machine learning online courses, worked on different computer vision and machine learning projects, and participated in Kaggle competitions and hackathons.

**EDUCATION**

Software Engineer (ML-Computer Vision), [École De Technologie Supérieure](http://etsmtl.ca)

August 2018 - present

Computer Science (NLP), [King Abdulaziz University](https://www.kau.edu.sa/Home.aspx?lng=en)

March 2015 - May 2018

Computer Science, [University of Hail](https://uoh.edu.sa/en)

April 2009 - August 2013

**SKILLS**

* **Data Structures:** Sorting, Recursion, Trees, Graphs, Dynamic Programming, Ad-hoc, Linked Lists, Stacks, Queues, and Strings.
* **Programming languages:** For machine learning and Data science (Python, R), and basic knowledge of Java, C#, C++, VB.net, Matlab, and Octave.
* **Deep Learning Framework**: Tensorflow, PyTorch, Keras, PyTorch Lightning, Theano, Caffe, and mxnet.
* **Website Development:** WordPress, Bootstrap, MySQL, PHP, HTML, CSS, Jquery, Javascript, and basic knowledge in Docker and Kubernetes.
* **GPU Programming:** Compute Canada servers like mist, Niagra, etc., Calcul Quebec like Narval, Lambda server, AWS, GCP, and Kaggle.
* **Organizational and planning skills**: communication skills, teamwork, data collection and management, attention to detail, problem analysis, and initiative confidentiality.

**EXPERIENCE**

* Researcher as a Ph.D. candidate in Synchromedia Lab, ETS, Canada, March 2020 – present. The main focus is on using machine learning and computer vision algorithms to recognize and analyze document (handwriting) images.
* Work on various machine learning projects/competitions like the Kaggle competition.

**Relevant courses**

1. **Image Processing** (COMP6771), [University of Concordia](https://www.concordia.ca/research/cenparmi/faculty.html?fpid=tien-bui), Autumn 2018.
2. **Machine Learning,** Taught by Andrew Ng, offered by Sandford Univerity on [Coursera](https://www.coursera.org/learn/machine-learning-course/home/week/1).
3. **Machine Learning Engineering for Production (MLOps) Specialization,** taught by Andrew Ng, Laurence Moroney, and Robert Crowe, offered by DeepLearning.AI on Coursera, contains the following [courses](https://www.coursera.org/specializations/machine-learning-engineering-for-production-mlops).
4. **Deep Learning with PyTorch: Zero to GANs**, by [Jovia](https://jovian.ai/certificate/MFQTIMJZGY)n.
5. Natural Language Processing: Zero to NLP, by [Jovian](https://jovian.ai/learn/nautral-language-processing-zero-to-nlp).
6. **Artificial intelligence engineer with eight projects** ), [Simplilearn](https://www.simplilearn.com/artificial-intelligence-masters-program-training-course?tag=Artificial%20Intelligence%20Engineer), June 2020 - March 2021.
   * **Projects achieved:**
     + Project 1. **IBM HR Analytics Employee Attrition Modeling**
     + Project 2. **House Loan Data Analysis**
     + Project 3. **Building a user-based recommendation model for Amazon**
     + Project 4. **Identify the level of income qualification needed for families in Latin America**
     + Project 5. **Topic Analysis of Review Data**
     + Project 6. **Classify Hate vs. Nonhate Tweets**
     + Project 7. **Customer Service Requests Analysis**
     + Project 8. **AI Capstone Project held Finance, Retail, and E-commerce**
     + **GitHub hosts my projects, and labs are** [**here**](https://github.com/MHHamdan/Artificial-Intelligence-Engineer)
7. **Advanced Certification Program in AI/ML,** [IIIT Hyderabad ML Lab](https://iiit-h.talentsprint.com/caid/index.html), September 2020 - March 2021. **Hackathons achieved:** 
   * Hackathon 1. **Voice Commands Based Ordering System**
   * Hackathon 2. **Alexa Chatbot**
   * Hackathon 3. **Expression Face Recognition - Mobile App**
   * Mini-Hackathon 1. **Data Munging**
   * Mini-Hackathon 2. **Aptitude Classification**
   * Mini-Hackathon 3. **Author Identification**
   * Mini-Hackathon 4. **Research Investigators Clustering**
   * Mini-Hackathon 5. **Dogs vs. Cats Binary Class Classification with PyTorch**
   * Mini-Hackathon 6**.** **Image Transformations - Kaggle Competition**, Kaggle [**here**](https://www.kaggle.com/competitions/30-days-of-ml/leaderboard)
   * Mini-Hackathon 7. **Sales Forecast - Kaggle Competition**, Kaggle [**here**](https://www.kaggle.com/competitions/retail-case-study-batch15/leaderboard)
   * GitHub hosts my Hackathons, Mini-Hackathons and labs are [**here**](https://github.com/MHHamdan/AIML-Hyderabad-ML-Lab)
8. **Deep Learning with PyTorch OpenCV course with four Projects,** July 2020 - January 2021.
   * **project achieved:**
     + Project 1. **Implement a CNN-based Image Classifier From scratch with PyTorch**
     + Project 2. **Kaggle Competition Classification**, Kaggle link [**here**](https://www.kaggle.com/competitions/opencv-pytorch-dl-course-classification/leaderboard)
     + Project 3. **Object Detection of Automatic Number Plate Recognition**
     + Project 4. **Kaggle Competition - Semantic Segmentation, Kaggle link** [**here**](https://www.kaggle.com/competitions/opencv-pytorch-course-segmentation/leaderboard)
     + GitHub hosts my labs, and projects are [**here**](https://github.com/MHHamdan/Deep-Learning-with-PyTorch--OppenCV-course)
9. **PyImageSearch Customers - PyImageSearch Gurus Course,** November 2020 - November 2022, **Skills achieved:** By completing 13 modules and multiple tests in 2 years, I understood computer vision and the fundamentals of computer vision algorithms, [source](https://pyimagesearch.com/pyimagesearch-gurus/).
10. **PyImageSearch University ImageNet Bundle - Deep Learning for Computer Vision with Python,** March 2020 - Present. Thant contains 3 leveled deep learning books. [source](https://pyimagesearch.mykajabi.com/offers/oXcrizmW/checkout).
11. **PyImageSearch University Full Access Plan,** March 2020 - Present, from zero to hero and up-to-date courses, [source](https://pyimagesearch.mykajabi.com/products/pyimagesearch-university-full-access-plan).
12. **Various ML ONLINE COURSES AND CERTIFICATES on Udemy,** [**source**](https://www.udemy.com/home/my-courses/learning/)**.**

**Academic** **Awards**

* Certificate of Excellence, Faculty: Computing & information technology, King Abdelaziz University, Jeddah, Saudi Arabia, 2014-2015, Has achieved a GPA of "Excellent" in both successive semesters of the academic year 2015-2016.
* Certificate of Excellence, Faculty: Computing and Information information technology, King Abdelaziz University, Jeddah, Saudi Arabia, 2015- 2016, Has achieved a GPA of "Excellent" in both successive semesters of the academic year 2015-2016.
* Certificate of Attendance Map of professional technical courses, Faculty: Computing & information technology, King Abdelaziz University, Jeddah, Saudi Arabia, 2015-2016, Has attended this course of the academic year 2015-2016.

**Publications**

* Hamdan, Mohammed H., and Imtiaz H. Khan. "An analysis of prepositional-phrase attachment disambiguation." International Journal of Computational Linguistics Research 9, no. 2 (2018): 60-80, IF: 2.27.
* Hamdan, M., Chaudhary, H., Bali, A., & Cheriet, M. (2022). Refocus attention span networks for handwriting line recognition. at: *International Journal on Document Analysis and Recognition (IJDAR), IF: 3.870.*
* Hamdan, Mohammed, Mr Chaudhary, and Mohamed Cheriet. (2022) "Transformer-Based Joint Attention Segmentation-Free for End-to-End Handwriting Paragraph Recognition Model." Mohamed, Transformer-Based Joint Attention Segmentation-Free for End-to-End Handwriting Paragraph Recognition Model. Journal of Neurocomputing, IF: 5.71.

**IN PROGRESS, AN INCREMENTAL LEARNING**

* Web Programming with Python and JavaScript by MIT & HARVARD university.
* Artificial Intelligence Engineer Program in Coursera organized by IBM.
* Deep Learning and Computer Vision Course organized by MIT.
* IBM Applied AI Profissional Certificate.
* Deep Learning Specialized in Coursera by Andrew Ng.
* TensorFlow Developer Professional [Certificate](https://www.tfcertification.com/courses/tensorflow-developer-professional-certificate/introduction-to-the-course)

**Courses-based Projects and ADDITIONAL ACTIVITIES - are listed in my long CV,** [**source**](https://docs.google.com/document/d/1QNX6RlbR5twp4rZCdNsL1ta1ECQ4H35RevN5BcdmHwA/edit)**.**