M. Hamada Gasmallah
gasmallahmohammed@gmail.com
Cell: 343-580-3334

EDUCATION

Master of Science (Research Based) Computer Science (3.98 GPA), Queen's University, Kingston, ON **Sept 2018–May 2020**

Bachelor of Science (Honours) Computer Science (3.6 GPA), Queen's University, Kingston, ON **Sept 2014–Apr 2018**

WORK EXPERIENCE

Artificial Intelligence Task Force Lead, Kings Distributed Systems, Kingston, ON **Mar 2020-Present**
- Managed and lead four AI software developers to enhance company AI stack
- Verified and optimized compute models through simulation
- Coordinated requirements with core system developers and key business partners
- Led three workshops on machine learning, artificial intelligence and distributed compute
- Built a real time social distancing infraction computer vision system

Teaching Assistant, CISC867 Deep Neural Networks, Queen's University, Kingston, ON **Jan 2020-May 2020**
- Developed and marked graduate course assignments for 50 students
- Led tutorials on Pytorch and Tensorflow libraries for deep neural network purposes

Research Assistant, NAAIS-SIANA Labs, Kingston, ON **May 2018–May 2020**
- Applied state of the art techniques to speed up training and inference by 400%
- Designed, Implemented, and evaluated novel deep neural networks for computer vision tasks focusing on motion smoothness in video object detection tasks
- Collaborated with researchers in research lab to develop novel networks for reinforcement learning and NLP tasks

Research Assistant, Defence Research and Development Canada, Kingston, ON **May 2018–May 2020**
- Designed experiments to evaluate specific metrics
- Reported six major experiments on motion smoothness and mean Average Precison
- Implemented and modified two novel mathematical metrics for use in experiments to measure motion smoothness

Computer Vision Consultant (remote position), R2i, Montreal, QC **Sept 2018–Feb 2019**
- Evaluated IBM Power9 systems using core machine learning libraries such as Tensorflow and Caffe
- Assessed and reported the performance of the IBM PowerAI Vision tool

PUBLICATIONS

- Alex Wojaczek, Regina-Veronicka Kalaydina, **Mohammed Gasmallah**, Farhana Zulkernine and Myron R. Szewczuk, "Computer Vision for Detecting and Measuring Multicellular Tumor Shperoids of Prostate Cancer" 2019 IEEE Symposium Series on Computational Intelligence (SSCI), China, 2019.
- **Gasmallah M**., Zulkernine F., Rivest F., Mousavi P., Sedghi A. (2019) Fully End-To-End Super-Resolved Bone Age Estimation. In: Meurs MJ., Rudzicz F. (eds) Advances in Artificial Intelligence. Canadian AI 2019. Lecture Notes in Computer Science, vol 11489. Springer, Cham. Presented May 2019 in Kingston Ontario
- **M. H. Gasmallah** and F. Zulkernine, "Video Predictive Object Detector," 2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, 2018, pp. 365-371. Presented November 2018 in Vancouver, BC

ADDITIONAL INFORMATION

- Other languages: Intermediate French (spoken, written)
- Libraries:
  - Docker, Tensorflow, Pytorch, NumPy, Matplotlib, OpenCV, Detectron/Detectron2, YOLO, Unity, Unreal
- Programming Languages:
  - C/C++, C#, JAVA, Python, Haskell, Prolog, BASH, JavaScript
- Proficient in HTML, Markdown and LATEX
- Received the **Michael A. Jenkins Graduate Fellowship (2018)**
  - Awarded based on outstanding academic achievement and research