

# OMAR ABID

## DATA SCIENTIST | Machine Learning and Computer Vision

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### SUMMARY

I obtained my BSc degree in Biophysics and then went on to pursue a MSc in Computer Science specializing in Computer Vision. Through my training I've acquired knowledge and experience in the domains of machine learning with a focus on computer vision from both a computational and neuroscience perspective. I am a highly motivated individual looking to build my career while continuing to learn and deliver projects with value. Currently seeking a role in these areas with a company having a clear vision moving forward.

### EDUCATION

**Master of Science:** (MSc) Computer Science 2018  
*York University — Toronto, ON, Canada*  
Area of Focus in Active and Attentive Vision in Computational Neuroscience.

**Bachelor of Science** (H.BSc) H. Biophysics 2014

### EXPERIENCE

**Data Scientist** April 2018 - Present  
*Watopedia - Dubai, U.A.E.*  
Develop a set of algorithms as separate modules that compose a deliverable for a security application. Includes but not limited to training Deep Neural Networks for object detection and classification, 3D environment reconstruction and mapping using monocular SLAM. The system is deployed on proprietary hardware in remote areas and captures input from a variety of input sources – Video stream and LIDAR.

**Research Assistant** May 2015 – August 2018  
*York University - Toronto, ON*  
J. Tsotsos Vision Lab: Addition of new features to TarzaNN - a neural network simulator. Implemented in C++.

**Research Assistant** October 2013 – April 2014  
*York University - Toronto, ON*  
*R. Lew's Electrophysiology Lab:* Design and development of an electronic circuit for current-voltage measurements of *Neurospora crassa* hyphae.

**Research Assistant** April 2013 – August 2014  
*York University - Toronto, ON*  
*T. Womelsdorf's Attention Learning Lab:* Statistical EEG Data analysis of Macaque Monkeys for neural population decoding. Analyzed with Matlab's Statistics and Machine Learning Toolbox.

### TECHNICAL SKILLS

- Machine Learning**  
Regression, Classification, Clustering, PCA, Deep Neural Networks, Bayes Networks
- Languages**  
R, Python, C++, Java, PHP, Android, Matlab
- Frameworks**  
*Big Data:* Hadoop, Spark, MLlib  
*Machine Learning:* Tensorflow, Torch  
*Computer Vision:* OpenCV, ROS  
*Cloud Services:* AWS, Google Cloud, IBM Blockchain Platform, IBM Watson
- Relevant Technologies**  
*Hardware:* Raspberry Pi, Arduino, DHT 22/11 Sensor, PIR Motion sensor.  
*Algorithms:* SLAM, R-CNN, LSTM

## PREVIOUS EXPERIENCE

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### **Research and Teaching Assistant**

January 2016 – April 2017

*York University — Toronto, ON*

Invigilate and grade exams and labs for first to third year undergraduate computer science students. Worked with robotics, mobile app development and software design.

### **Software Developer Associate**

November 2012 – April 2013

*York University — Toronto, ON*

Design and implement software interface and communication systems for York University's Rover Team using C++ and Python.

## PUBLICATIONS

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Sengupta, R., Abid, O., Bachoo, A., & Tsotsos, J. (2017). Attentional blink as a product of attentional control signals: A computational investigation. *Journal of Vision*, 17(10), 1197-1197.