+1 (613) 252 - 6946 ◇ w.elahmar@hotmail.com

190 Lees Ave #1508, K1S 5L5, Ottawa ON, CA.

https://github.com/wassimea ◇ https://ca.linkedin.com/in/wassimea ◇ http://www.site.uottawa.ca/ welah096

WASSIM EL AHMAR

AI and Deep Learning professional with 6 years experience researching, developing, optimizing, and deploying AI systems for machine vision applications. Areas of expertise/interest: Deep learning, automated machine learning, embedded systems optimization, software engineering, project management.

EDUCATION

Doctorate of Philosophy in Electrical and Computer Engineering September 2019 - Present
University of Ottawa
Research Interests: Deep Learning, Artificial Intelligence, Machine Vision, Software Engineering
Courses taken: CNN for Machine Vision, Software Engineering project management, Multimedia communications, Comprehensive examination (topics: AI, Software Project Management)
Supervisor: Robert Laganière

Master of Applied Science in Electrical and Computer Engineering September 2017 - June 2019
University of Ottawa
Thesis Subject: Head and shoulder detection using CNN and RGB-D data
Courses taken: Machine vision, Computer animation, Distributed database systems, source coding and data compression, Directed studies (feature engineering)
Supervisor: Robert Laganière

Bachelor of Computer Engineering September 2012 - June 2017
Beirut Arab University

WORK EXPERIENCE

Artificial Intelligence Engineer - *Pleora Technologies* June 2020 - Present

- Develop AI and deep learning solutions for machine vision and quality inspection applications
- Develop and integrate cross-platform APIs/SDKs that provide services for IoT and machine learning/AI, sensors, image processing applications.
- Optimize AI solutions for embedded systems deployment
- Research and Development of AutoML solutions

Part-time Professor - *University of Ottawa* January 2020 - Present

- Introduction to Computing (Winter 2020, Winter 2021)
- Led a team of 8 teaching assistants to deliver the course, received a letter of congratulations from Faculty of Engineering dean for outstanding performance

Research Assistant - *VIVA Research Lab* September 2017 - Present

- AI, deep learning, machine vision, image processing, and embedded systems research

Research Partner - *Sensor Cortek* January 2020 - June 2020

- Thermal-Depth sensor registration
- Synchronous data capturing using thermal, depth, radar, and RGB sensors

· Deep learning research on object detection using fused thermal-depth data for autonomous vehicle applications.

Research Partner - *Tempo Analytics* June 2019 - January 2020

· Person re-identification and tracking research using deep learning and AI methods
· Server setup, deployment, maintenance, and optimization
· Design, development and maintenance of MySQL database and web system for client-side functionality

Teaching Assistant - *University of Ottawa* September 2017 - January 2020

· Introduction to Software Engineering (Fall: 2017, 2018, 2019)
· Design and Analysis of UI systems (Winter: 2017, 2018)

Research Partner - *Pleora Technologies* December 2018 - June 2019

· Dynamic real time image stitching
· Homography estimation using traditional AI and convolutional neural networks
· Embedded systems optimization

Research Partner - *SMATS Traffic Solutions* February 2018 - June 2018

· Worked on building data acquisition, augmentation, and management tools.
· Deep Learning, Object Detection, Convolutional Neural Networks, Passenger Detection, Thermal Imaging.

Web Developer - *University of Ottawa Web Services* October 2017 - February 2018

· PhP code development for uOttawa applications
· Maintenance and upgrade of uOttawa web applications

Developer - *Al Mayadeen Satellite Network* December 2015 - June 2017

· Ensuring the workflow remains steady (Maintenance of servers and workstations)
· Developing applications to help members of the IT department with their everyday work (FTP, server storage, download manager...)
· Developing general applications to be used by personnel in the TV (Archive, Ingest, News...)

PUBLICATIONS

Fast Human Head and Shoulder Detection Using CNN and RGBD Data 2020

· **Wassim A. El Ahmar**, Farzan Erlik Nowruzi, R. Laganiere. Computer Vision and Pattern Recognition, CVPR 2020 - Perception Beyond the Visible Spectrum, Seattle, USA.

In-Vehicle Occupancy Detection with Convolutional Networks on Thermal Images 2019

· Farzan Erlik Nowruzi, **Wassim A. El Ahmar**, R. Laganiere, A. Ghods. Computer Vision and Pattern Recognition, CVPR 2019 - Perception Beyond the Visible Spectrum, California, USA.

SKILLS AND TRAITS

Programming Languages	C#, C++, C, Python, Java, JSP and Servlets, JavaScript, SQL, PHP
Knowledge of	PL SQL, Assembly, Perl, Ruby on Rails
Libraries and Frameworks	Tensorflow, Pytorch, OpenCV,
Traits	Increasing productivity through an excellent ability to simplify complexities

LANGUAGES

English and Arabic (Fluent)