

KAREEM ARAB

Research Assistant

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Ottawa, Canada

itskareem.me

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WORK EXPERIENCE

Research Assistant

Sensor Systems & IoT Lab @ Carleton University

05/2017 – Present

Ottawa, ON, Canada

The Sensor Systems and Internet of Things Lab is a central hub for innovative research in topics ranging from Smart Grid Systems to Energy Harvesting.

Achievements/Tasks

- R&D of machine learning algorithms for engineering applications
- Worked with feed-forward & recurrent neural networks, anomaly detection, DSP, wireless sensor communications, real time embedded systems, sensors

Researcher/Developer

Macadamian/NSERC

02/2018 – Present

Ottawa, ON, Canada

Joint project between the Sensor Systems and IoT Lab and Macadamian, funded by NSERC.

Achievements/Tasks

- Development of a "Diabetes Coach"; a system that helps improve the lives of type 2 diabetes patients. The project involves the use of AI techniques as well as the development of an efficient and reliable system architecture to host the data analytics involved, as well as integrating it with the Macadamian Hive platform.
- Authored research paper discussing the results of this project; submitted to the IEEE WCNC conference for publishing

Vigor Enterprise

Office Administrator Intern

04/2015 – 08/2015

Kuwait City, Kuwait

Achievements/Tasks

- Helped organize seminar given by Lee Cockerell, former Executive Vice President of Operations for the Walt Disney World® Resort
- Helped organize Wayans Brothers Comedy Show Event

EDUCATION

Bachelor of Science, Computer Science, BCS

Carleton University, 4th Year Standing, expected graduation: 2019

09/2015 – Present

Ottawa, ON, Canada

Relevant Courses

- OOP
- Data Structures & Algorithms
- Software Engineering
- Calculus (I, II, III & IV)
- Operating Systems
- Signals & Systems (DSP)
- Systems Programming
- Web Development
- Discrete Structures
- Programming Paradigms

SKILLS

Swift

Python

Java

C

C++

HTML/CSS/JS

MATLAB

PROJECTS

TRND (06/2017 – Present)

- iOS app using the Parse Baas API using MVC Architecture
- Users can follow each other, comment and/or like each other's photos/videos as well report them.
- Integrates the GIPHY API
- Deployed on Heroku

Glance (in-progress) (11/2018 – Present)

- An advanced Operating System task/process manager and visualizer, written in Python.
- Supports: UNIX, Linux and OSX

PSAC Website (02/2018 – 04/2018)

- Developing a full-scale website for the Carleton University Postdoctoral Union using Laravel (psac77000.ca)

Join-fy (01/2018 – 01/2018)

- A simple joiner built with Python w/ Pandas at it's core

Personal Website (06/2017 – 07/2017)

- Simple front-end website (itskareem.me)

ACHIEVEMENTS

Shopify - Build Things

Selected among six winning apps at Shopify's Build Show Up App Showcase.

IEEE Publication - Data Communication and Analytics for Smart Grid Systems

IEEE International Conference on Communications (ICC)

LANGUAGES

English, Arabic

FRAMEWORKS, TOOLS AND METHODOLOGIES

Firebase

Parse

TensorFlow

Scikit-Learn

Xamarin

MySQL

Node.JS

React Native

Laravel

SSH

MongoDB

IBM Bluemix

MVC

Heroku

UML

Agile Development

XCode