Kareem Arab

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work experience	**NEUROVINE**	*Apr 2019 - Sep 2020*

Software Engineer
- Built multiple APIs w/ AWS Lambda that provide functionality to the mobile app and clinician portal which are helping advance Neurovine into the first phase of testing
- Worked on building a consumer mobile app as well as a research clinicians portal using the Ionic (Angular) cross-platform framework
- Worked w/ Data Science team to build an EEG analysis system which provides real-time feedback of cognitive over-exertion to concussion patients
- Developed an integration system using Pip that allows the data-science team to develop their algos independently and update the respective APIs automatically when needed
- Took on a dynamic role working through the entire stack in a challenging start-up environment

CARLETON UNIVERSITY POSTDOCTORAL UNION — *Winter 2018*

Full-Stack Web Developer · freelancing
- Developed website for the Carleton University Postdoctoral Union using Laravel (PHP) along with an administrative dashboard to control posts and events

education | **CARLETON UNIVERSITY** — *Spring 2020*

BSc in Computer Science · *graduated*

research | **IOT LAB @ CARLETON UNIVERSITY** — *2017 - 2019*

Undergraduate Researcher
- R&D of machine learning algorithms for engineering applications
- Helped research the best performing inference techniques on Smart Grid energy data
- Learned to work w/ Neural Networks, Anomaly Detection, Digital Signal Processing (DSP) & Wireless Sensor Communications

DIABETES COACH (MACADAMIAN—IOT LAB) — *Winter 2018*

Research & Development Intern
- Helped build a system that aims to improve the lives of type II diabetes patients through self-management using voice control (Alexa) and real-time feedback

publications | **ARTIFICIAL INTELLIGENCE FOR DIABETES MELLITUS TYPE II: FORECASTING AND ANOMALY DETECTION** — *2019*

Author — IEEE Wireless Communications and Networking Conference

DATA COMMUNICATION AND ANALYTICS FOR SMART GRID SYSTEMS — *2018*

Co-author — IEEE International Conference on Communications

achievement(s) | **SHOPIFY — BUILD THINGS APP AWARD** — *Nov 2018*

Winner of the best App award @ Shopify's Build Things App Showcase

projects | **C&W ADVERSARIAL ATTACK** — *Winter 2020*

- Comparing the effects of Gaussian and Adversarial Perturbations on a CNN

NEURAL NETWORKS — *Summer 2020*

- A collection of different Implementations of NNs (Hopfield, RBF and Convolutional)

TRND — *2017-2018*

- Social network built only for GIFs. Built on iOS using Swift

More projects on *github.com/kareemarab*

languages, frameworks and technologies | **PYTHON, SWIFT, TYPESCRIPT, HTML, (S)CSS/SASS**
TENSORFLOW, AWS LAMBDA, SERVERLESS, GIT, CI/CD (GITHUB ACTIONS), IONIC (ANGULAR), FIREBASE, GATSBY, PARSE, NEXTJS , LARAVEL, DYNAMODB