Kareem Arab

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languages, frameworks and technologies

SWIFT — PYTHON — TYPESCRIPT — HTML/(S)CSS/ — C++
XCODE — IOS —TENSORFLOW — AWS LAMBDA/SERVERLESS — REST — GIT — CI/CD (GITHUB ACTIONS) — LINUX — IONIC (ANGULAR) — FIREBASE — FIRESTORE — PARSE — REALM — NEXTJS — DYNAMODB — VERCEL — MATHJAX — LATEX

work experience

NEUROVINE *Apr 2019 - present*
Software Engineer
- Built **APIs** w/ **AWS Lambda** that provide functionality to multiple apps
- Helped develop a consumer mobile app & research portal using the **Ionic (Angular)**
- Collaborated w/ Data Science team to build a **Python real-time** EEG analysis system
- Helped set up an integration system using **PIP** that allows the data-science team to develop their algos. independently and update the respective APIs automatically
- Worked through the entire stack in a dynamic start-up environment
- Helped implement **HIPAA** requirements across all our systems

CARLETON UNIVERSITY POSTDOCTORAL UNION *Winter 2018*
Web Developer
- 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*
Bachelor of Computer Science (BSc)

projects

HANDSHAKE — *Proprietary* *2018*
- Private events iOS app - beta release soon. Built using **Swift**

TRND *2018*
- A social network app for GIFs. Also built using **Swift**

GUASSIAN/CARLINI-WAGNER ADVERSARIAL ATTACKS *Winter 2020*
- Comparing the effects of Gaussian and Adversarial Perturbations on a convolutional neural network's input space

NEURAL NETWORKS *Summer 2020*
- A collection of different Implementations of neural networks (Hopfield, RBF and Convolutional) built using **TensorFlow**

GLANCE *2018*
- **Linux OS** Task Manager written in Python

** More **projects** on ***github***.

research

IOT LAB @ CARLETON UNIVERSITY *2017 - 2019*
Undergraduate Researcher
- Helped research the best performing inference techniques on Smart Grid energy data
- Learned to work w/ **Neural Networks**, **DSP** & **Wireless Sensor Communications**

DIABETES COACH (MACADAMIAN—IOT LAB) *Winter 2018*
- Helped build a system that aims to improve the lives of type II diabetes patients through self-management using voice control and real-time feedback

publications

AI 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