

Kareem Arab

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languages, frameworks and technologies **SWIFT — JAVA — PYTHON — TYPESCRIPT — SQL — HTML/(S)CSSSS**
iOS, XCODE, REALM, SERVERLESS (AWS LAMBDA/GCP FUNCTIONS) — GCP — AWS —
K8S — HELM — DOCKER — VAULT — CI/CD (XCODE CLOUD, GITHUB ACTIONS, JENKINS, SPINNAKER) — TENSORFLOW — SPRING BOOT — MYSQL — REDIS — DYNAMODB
— IONIC — FIREBASE — RANCHER — SPLUNK — LATEX

work experience **AMADEUS**

Mar 2021 - present

Full Stack Engineer

- Developed and integrated **Multi-Factor Authentication (MFA)** into our existing authentication service, enhancing account security for millions of users.
- Developed and executed multiple service deployments to Rancher K8s w/ caching, resulting in self-healing deployments, increased capacity and reduced database load.
- Responsibility over major system components & onboarding of new engineers.
- Led grooming/solutioning sessions & stand-ups.
- Designed and developed internal tools (user-management, code-review listing, etc.) that help developers streamline their development process.

NEUROVINE – STARTUP

Apr 2019 - Feb 2021

Software Engineer

- Developed **APIs** built on **AWS Lambda** (serverless) in **Python** that drove our mobile and research portal apps. It also drove our internal data-science pipeline.
- Shipped a consumer mobile app & a research portal built w/ **Ionic**.
- Collaborated w/ the Data Science team to build a **real-time** EEG analysis system.
- Helped implement **HIPPA** requirements across our systems.

education **CARLETON UNIVERSITY**

Spring 2020

Bachelor of Computer Science (BSc)

projects HANDSHAKE – iOS App

2018

- Private real-time group chat w/ built-in event management - beta. Built using **Swift**, **Firebase**, **Google Cloud Functions**, **Cloud Scheduler** and **Realm DB**.

TRND

2018

- A social network app for GIFs. Built using **Swift** and **Parse**.

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**.

** More projects on [github](#).

achievements SHOPIFY — BUILD THINGS APP AWARD

Nov 2018

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

research IOT LAB @ CARLETON UNIVERSITY

2017 - 2019

Undergraduate Researcher

- Researched the best performing inference techniques on Smart Grid energy data.
- Built a real-time multi-modal data streaming system using a Raspberry Pi and IBM Cloud.

DIABETES COACH (MACADAMIAN—IOT LAB)

Winter 2018

- Help 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 ** All publications on *google scholar*.