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) 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*
- 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

** All **publications** on *google scholar*.