Kareem Arab

Full stack generalist
me@kareemarab.com
Ottawa, Canada — Remote

languages	PYTHON — GO — SWIFT — TYPESCRIPT — LATEX
frameworks/technologies	React — NextJS — iOS — Serverless — REST APIs — Websockets — Kuberentes — CI/CD (Jenkins, Actions, etc.) — Firebase — **Plaid + Link**
libraries	Tensorflow — UIKit — Tailwind — ReactQuery
cloud platforms	GCP — AWS — Azure — Vercel
databases	MongoDB — Redis — Firestore — MySQL
processes	Kanban — Agile — Scrum

work experience

AMADEUS — *Full Stack Engineer* — *Mar 2021 - present*

- Collaborated with cross-functional teams to plan and implement the migration of our Guest Management Solutions infrastructure from **On-prem & GCP** to **Azure**.
- Collaborated on the design and implementation of a new **Multi-Factor Authentication (MFA)** system, enhancing account security for users.
- Successfully migrated multiple services to **Rancher k8s** with caching, resulting in self-healing deployments and improved capacity and reduced database load for Black Friday.
- Designed, built and tested highly performant **APIs**.

NEUROVINE — *Software Engineer* — *Apr 2019 - Feb 2021*

- Developed secure **Serverless APIs** built on **AWS Lambda** in **Python** that drove our mobile app as-well as our research and data-science pipelines.
- Worked on low-level bluetooth communication software for our wearable EEG headset.
- Shipped a mobile app & a research portal built w/ **Ionic**.
- Worked closely with the data science team to integrate **ML** models into the platform.
- Implemented **HIPAA** compliance requirements across our systems/designs.

projects

PRINCIPAL — *present*
- Financial management platform — *Stack: Go & React*

HANDSHAKE — *2020-2022*
- Real-time group chat w/ built-in event management — *Stack: iOS & Serverless (GCP)*

RP — *2018*
- A multithreaded HTTP Redis proxy server w/ an LRU cache — *Stack: Python*

GAUSSIAN—CARLINI-WAGNER ADVERSARIAL ATTACKS — *Winter 2020*
- Gaussian & Adversarial Perturbations on a CNN's input space.

NEURAL NETWORKS — *Summer 2020*
- A collection of neural network implementations built u/ **TensorFlow**.

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

research

IOT LAB @ CARLETON UNIVERSITY — *2017 - 2019*
Undergraduate Researcher
- Conducted research on ML model applications for Smart Grid energy systems.
- Built a real-time multi-modal data streaming system using a Rasp. Pi and IBM Cloud.

DIABETES COACH (MACADAMIAN—IOT LAB) — *Winter 2018*
- Type II diabetes self management tool.

education

CARLETON UNIVERSITY — *Spring 2020*
Bachelor of Computer Science (BSc)

achievements

SHOPIFY — BUILD THINGS APP AWARD — *Nov 2018*
Winner of the best App award @ Shopify's Build Things App Showcase.

publications

** List of **Publications** on *Scholar*.