Kareem Arab

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

languages	PYTHON — GO — SWIFT — TYPESCRIPT — LATEX	
frameworks/technologies	$\label{eq:React-NextJS} React - NextJS - iOS - Serverless - REST \ APIs - Webhooks \ (verification + tunneling) - Websockets - Kuberentes - CI/CD \ (Jenkins, Actions, etc.) - Firebase - Plaid$	
libraries	$Tensorflow - UIKit - Tailwind - ReactQuery - PyTorch \ (elementary \ proficiency)$	
cloud platforms	GCP — AWS — Azure — Vercel	
databases	${\bf MongoDB-Redis-Elasticsearch-Firestore-MySQL}$	
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	- Realtime financial aggregation & search — React & Go + Plaid	present
	- Realtime group chat w/ built-in event management — iOS (Swift) & Serverless →	2020-2022
	- Multithreaded HTTP Redis proxy w/ an LRU cache — <i>Python</i> →	2022
	- Hopfield, RBF & Conv. neural network implementations — <i>Python & TensorFlow</i> \rightarrow	Summer 2020
	- Analyzing Gaussian & adversarial perturbations on a CNN's latent space \rightarrow	Winter 2020
	More projects on github.	
research	IoT Lab @ Carleton University Research assistant - Conducted research on ML applications for Smart Grid energy systems. - Built a real-time multi-modal data streaming system using a Rasp. Pi and IBM Cloud. - Published two conference papers.	2017 - 2019
	DIABETES COACH (MACADAMIAN—IOT LAB COLLABORATION) - Type II diabetes self management tool.	Winter 2018
education	CARLETON UNIVERSITY Bachelor of Computer Science (BSc)	Spring 2020
1-!	Cycopyny Dywyn Tyynygg Ann Ayynn	M 2010

Nov 2018

achievements

publications

SHOPIFY — BUILD THINGS APP AWARD

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

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