

OMKAR KAKADE

o-kakade.github.io
in omkarkakade
o-kakade

Skills

LANGUAGES

Python
TypeScript
JavaScript
Java

WEB

Django
Angular
Celery
Nest.js

STORAGE, CACHE, MQ

PostgreSQL
SQL
AWS Neptune
SPARQL
S3
Redis
Firebase

CLOUD

Amazon Web Services - AWS
Google Cloud Platform - GCP
Microsoft Azure

AI/ML

PyTorch
Tensorflow
Pandas
Numpy
Scipy
Matplotlib
OpenCV
spaCy
scikit-learn

TOOLS

Docker
Nginx
Prometheus
Grafana
Git

Certifications

AWS Certified Solutions Architect - Associate	2019 - 2022
AWS Certified Developer - Associate	2020 - 2023
AWS Certified SysOps Administrator - Associate	2020 - 2023

Experience

Senior Software Engineer
Motorola Solutions

Vancouver, CA
Feb. 2024 - Current

- Full-Stack SWE on CAPE, a drone video livestreaming & remote control platform. [\[Product Link\]](#)
- Lead infrastructure and security compliance for CAPE with **99.95% Service Level Objective (SLO)**.
- Developed an auto-update mechanism for Android apps, reducing update times by 3x.
- Built an asynchronous flight data processing **microservice**, reducing processing time by 92x & enabling immediate session availability for enhanced UX. **(AWS Lambda, S3, Celery, Redis, Kibana)**
- Cross function work - Collaborated with and worked on the Video Services team to deploy services to secure **Azure GovCloud** environment in the Canada region improving multi-region availability.

Software Engineer
Motorola Solutions

Somerville, MA
Nov. 2021 - Feb. 2024

- Developed features for CAPE like Livestream Viewer Management, Mission Planning, Public Livestreaming Capability, Pilot Management resulting in 5x customer growth.
- Integrated drone live streams and location with Motorola services, enhancing ecosystem functionality and improving customer satisfaction by enabling seamless access within a single platform. [\[Press Release\]](#) **(Python, Django, Redis, Celery, Azure EventHub)**
- Migrated frontend to **Angular 13**, reducing vulnerabilities by 30% & improving load times by 54%.
- Built Docker containers for local development, cutting setup time by 25x. **(Docker, Django, Angular, PostgreSQL, Redis, Nginix)**

Software Engineer - AI/ML
Bola AI

Boston, MA
Feb. 2021 - Oct. 2021

- Voice Enabled Dental EHR System** - Designed scalable cloud infrastructure to support a 3x growth in users. **(Azure, Docker, NGINX, AppGateway, Prometheus, Grafana, Nest.js, WebSockets, Sentry)**
- Built CI/CD pipelines, reducing deployment time to under 10 minutes. **(Github Actions)**
- Developed a custom speech model improving response time and accuracy by 10% while reducing costs by 58%. **(Deepgram automatic speech recognition, Docker, CUDA, Typescript, Python)**

Machine Learning Engineer
Siemens

Orlando, FL
Jan. 2020 - May 2020

- Internal Predictive Analytics Platform** - Built Docker images for custom R-based time series forecasting models, improving scalability.
- Reduced model deployment costs by 64% using batch transforms. **(AWS Sagemaker)**

Software Developer
Siemens

Orlando, FL
May 2019 - Dec. 2019

- Search Application for Knowledge Graph** - Developed a RESTful API for a serverless search app using AWS, Graph Database and NLP techniques. **(Python, Java, spaCy, Apache Jena, Flask, Springboot, AWS Lambda, API Gateway, Neptune, S3, Angular)**
- Implemented cloud resource management API, saving 87% in EC2 costs.

Education

Rochester Institute of Technology
Master of Science Computer Science

Aug. 2017 - Dec. 2020

University of Pune
Bachelor of Engineering Computer Engineering

Aug. 2012 - May 2016

Projects

Performance and Deployment of Deep Neural Net on Edge Devices

2020

- Deployed InceptionNet and MobileNet on Raspberry Pi 4, optimizing for accuracy, CPU/memory usage, and latency using techniques like quantization, weight clustering and weight pruning. **(Tensorflow)**

Multi-core, Cluster, GPU and Map-Reduce Projects

2018

- Developed solutions for large-scale mathematical problems using multi-core, cluster, GPU, and Map-Reduce techniques. [\[Link\]](#) **(Parallel Java 2, Java, C, CUDA)**