

# OMKAR KAKADE

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## Skills

### LANGUAGES

Python  
TypeScript  
JavaScript  
Java

### WEB

Django  
Angular  
HTML/CSS  
Celery  
Spring  
Nest.js

### DATABASES

PostgreSQL  
SQL  
Firestore  
AWS Neptune  
SPARQL

### 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  
Git  
Bash  
Nginx

## 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 low-latency P2P drone video & control platform. [\[Product Link\]](#)
- Lead infrastructure and security compliance for CAPE with **99.95% SLA**.
- Developed an auto-update mechanism for Android apps, reducing update times by 3x.
- Built a log-processing **microservice** for flight telemetry data, improved UX & backend efficiency.
- xFN task - Collaborated with the Video Services team to deploy services to secure **Azure GovCloud** environment in the Canada region.

Software Engineer  
Motorola Solutions

Somerville, MA  
Nov. 2021 - Feb. 2024

- Developed features for CAPE like Viewer Management & Mission Planning, resulted in 5x customer growth.
- Integrated drone live streams with internal services, enhancing ecosystem functionality. [\[Press Release\]](#) (**Python, Django, 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, Nginx**)

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 ASR, 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**)
- **Cloud Resource Management** - 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. (**Python, TF-Lite**)

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**)