

OMKAR KAKADE

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

Skills

LANGUAGES

Python
TypeScript
JavaScript
Java

WEB

Django
Angular
Celery
Nest.js

STORAGE

PostgreSQL
SQL
Firebase
AWS Neptune
SPARQL
S3

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
Redis
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 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 asynchronous flight data processing, improved UX by immediate session availability & reduced processing time by 92x. (AWS Lambda, S3, Celery, Redis, Kibana)
- 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 Livestream Viewer Management, Mission Planning, Public Livestreaming Capability, Pilot Management resulting 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, 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 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. (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)