OMKAR KAKADE

omkar.kakade@gmail.com
o-kakade.github.io
omkarkakade
o-kakade

Skills

LANGUAGES
JavaScript
Python
TypeScript
Java

WEB
Nest.js
HTML
Spring
CSS
Angular
Django
Celery

DATABASES
SQL
PostgreSQL
SPARQL
Firestore
AWS Neptune

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

AI/ML
Tensorflow
PyTorch
Pandas
Numpy
Scipy
Matplotlib
OpenCV
spaCy
scikit-learn

TOOLS
Git
Bash
Docker
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 — Vancouver, CA
Motorola Solutions — 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 — Somerville, MA
Motorola Solutions — 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, Nginix**)

Software Engineer - AI/ML — Boston, MA
Bola AI — Feb. 2021 - Oct. 2021

- **Voice Enabled Dental EHR System** - Designed scalable cloud infrastructure to support a 3x growth in users. (**Azure, Docker, NGINX, App Gateway, 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 — Orlando, FL
Siemens — 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 — Orlando, FL
Siemens — 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 — Aug. 2017 - Dec. 2020
Master of Science Computer Science

University of Pune — Aug. 2012 - May 2016
Bachelor of Engineering Computer Engineering

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 - https://bit.ly/2IJBf8B 2018

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