

NIHAR JOSHI

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EDUCATION

Master of Science in Computer Science | **University of Illinois at Chicago** | 3.67 GPA
Bachelor of Science in Information Technology | **National Institute of Technology, Karnataka**

Aug 2021 – May 2023
Aug 2014 – May 2018

EXPERIENCE

Software Engineer Intern | **Apple** | Sunnyvale, California

May 2022 – Aug 2022

- Engineered the full-stack development of an automated inter-departmental release notification system for stakeholders.
- Built a robust filesystem monitor to automatically extract relevant information from secure storage, eliminating human error by 100%.
- Deployed the feature set onto Kubernetes as an organization-wide service, improving performance by up to 75% via load balancing.
- Migrated 5 preexisting applications onto Kubernetes and onboarded 6 teams into using my feature as their primary alert system.
- Presented the feature set demo to the Vice President and released a fully functioning beta to the Software Testing team within 12 weeks.

Software Engineer II | **EagleView Technologies** | Bengaluru, India

Aug 2019 – Jun 2021

- Designed the EagleView Assess Machine Learning pipeline for real estate property inspection to serve more than 2 million customers (and clients such as Tesla Solar) with 98% customer satisfaction.
- Reduced real estate property inspection time from 3 days to 6 hours per property via automation using a stack of Python, Go, Kubernetes, AWS and Kafka, saving the company more than \$70,000 annually in infrastructure costs.
- Converted legacy Image Processing APIs into robust and scalable gRPC Go services capable of handling 100 concurrent streams of requests per second while honoring a Service-Level Agreement of 99.999% uptime (5-nines Availability).
- Designed a Multi-threaded image tiling API in Python OpenCV to reduce the image retrieval time by 55% for the internal GraphQL API-based database housing more than 1 billion high-resolution property images.
- Assisted the Data Science team design a seamless CI/CD process to host various Anomaly Detection models orchestrated via Netflix Conductor to support 1000+ model predictions per second.
- Earned the Above & Beyond Performance award from the CEO for cross-team leadership, communication ability, presentation skills and driving EagleView Assess to production within 6 months.

Software Developer | **Graphene AI** | Bengaluru, India

Jun 2018 – Jun 2019

- Led the CI/CD and Inter-process Communication (IPC) development for the Mavis AI engine to automate market research for Procter & Gamble, Johnson & Johnson, Sanofi, Abbott and other top healthcare specific companies.
- Designed a distributed text processing module using Python, Apache Spark and Apache Kafka to automate data extraction, stopword removal, stemming, lemmatization and tokenization of more than 10 million lines of text per day.
- Improved the QA process by refactoring underperforming IPC modules and increasing the integration test coverage of internal pipelines from 45% to 87%.
- Chosen as the Lead SWE to collaborate with Procter & Gamble by virtue of being the highest performing member of the AI Team.

PROJECTS

Contextual Object Relationship Identification for Anomaly Detection & Image Enhancement

May 2018

- An application that performs real-time Scene Recognition and Anomaly Detection using Faster-RCNN based Deep Learning to detect emergencies in live video feeds (example - fire in a house, accident on a road) with an accuracy of over 94%.
- Awarded the Best Student Project Award for 2018 by AMD for our contribution to the development of Smart Cities.
- Submitted the project paper to the 2019 Conference on Computer Vision and Pattern Recognition.

Log File Monitoring & Alert System

Dec 2021

- An Apache Spark based log file processor written in Scala that sends automated alerts to stakeholders based on log severity and frequency for cloud monitoring and troubleshooting.
- Consists of an Akka actor system deployed on an Elastic Kubernetes Service cluster with ElastiCache (Redis) database for persistent storage.
- Uses Amazon's Managed Streaming for Apache Kafka to perform inter-process communication and AWS SNS to send email notifications.

SKILLS

Proficient: Python, Bash, AWS, Docker, Kubernetes, Apache Kafka, Jenkins, Argo CD, Redis, PostgreSQL, Flask, CI/CD, REST APIs, Linux/UNIX, Shell Scripting, Git, Unit/Integration Testing, DSA

Exposure: Scala, Go, Apache Hadoop, Apache Spark, gRPC, OpenCV, GraphQL, Google Cloud Platform, Microsoft Azure