

Mihir Khare

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"Software Engineer with 2+ years of experience in distributed systems and machine learning engineering, seeking internship or full-time opportunities in these fields."

EDUCATION

New York University Masters in Computer Engineering

September 2024 - Present

Coursework : Introduction to Machine Learning, Probability and Stochastic Process, Internet Architecture and Protocols

Vellore Institute of Technology B.Tech Computer Science and Engineering

July 2018 - May 2022

PROFESSIONAL EXPERIENCE

Full Stack Developer at Cimpress India Pvt Ltd, Bangalore (SDE PR1)

August 2022 - August 2024

- Spearheaded the development and maintenance of business-critical pricing tools, ensuring seamless updates and real-time publishing of live prices, impacting over **150k requests per minute**.
- Led the transition to a new pricing architecture, optimizing database read/write operations, which **reduced latency by 30%** and enhanced system scalability to support growing business demands.
- Collaborated with cross-functional teams to implement infrastructure improvements, utilizing cloud technologies (**AWS**) and container orchestration (**Docker, Kubernetes**), improving deployment times by 40%.
- Championed regular code review sessions focused on scalability and security protocols, directly contributing to a significant 20% reduction in production incidents while fostering team adherence to high-quality development standards.
- Refined the communication pathways of APIs linking frontend to backend services, resulting in reduced average response times by 25%, thus fostering an improved overall user satisfaction rate with crucial system functionalities.
- Devised a comprehensive automation strategy that reduced manual checks on server health by over 40%, enabling faster detection of issues and increasing team response efficiency to incidents within minutes instead of hours.

Backend Developer Intern - Softech Applutions Pvt Ltd

June 2020 – November 2020

- Spearheaded the backend development for Trailer 2 You, a trailer-booking app akin to Uber; deployed on a small scale in Australia while optimizing user engagement through scalable and robust architecture that handled high traffic.
- Optimized backend performance by implementing efficient database structures using **MongoDB**, reducing data retrieval times by 20%, ensuring smooth real-time user interactions.
- Configured load balancers alongside auto-scaling groups on **AWS infrastructure** that sustained operational efficiency leading up to processing requests at rates exceeding 10k per minute without significant lag or failures.
- Containerized and deployed the application using **Docker**, streamlining the development workflow and ensuring consistent performance across development, staging, and production environments.

TECHNICAL SKILL

Programming Languages, Frameworks & Packages: Python, C++, Flask, FastAPI, Git, Pandas, SQL, JavaScript, REST APIs, AWS, Docker, Github Actions, Kubernetes.

ML Frameworks: PyTorch, Keras, OpenCV, PySpark, Scikit-Learn

Tools & Database: AWS Lambda, API Gateway, AWS Sagemaker, MongoDB, PostgreSQL, DynamoDB, FAISS, AWS ECR, AWS EC2

ACADEMIC PROJECTS

- **Entertainment By Xpressions [Vellore Institute of Technology, Vellore]**

Aim: To automate music selection based on the user's mood using real-time facial expression analysis.

As a Team Member in a team of 2, participated in the development of algorithms and the integration of the real-time facial expression analysis feature. Also created the entire UI for this application.

Publications : Entertainment by xpressions under review

Technologies Used: TensorFlow, React, ExpressJS

- **TaskPicker**

Developed TaskPicker, an automated web application that reorganised task allocation for campus clubs; improved member engagement and productivity by matching 200+ users with tasks based on skill sets and availability.

Tech Stack: Python, HTML, CSS, JavaScript, Heroku.