

Dhruv Vaghela

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EDUCATION

Stevens Institute of Technology | Master of Science in Computer Science Aug 2022 - May 2024

- **Coursework:** Adv. Algorithms, Web Development, Artificial Intelligence, Deep Learning, Database Management Systems

University of Mumbai | Bachelor of Engineering in Information Technology July 2015 - May 2019

SKILLS

- **Languages:** Python, Javascript, HTML5, CSS, Typescript, Swift, Java, C++
- **Libraries and Frameworks:** Pytorch, Tensorflow, Keras, FastAPI, Angular, React, NodeJS, Redis, GraphQL, PostgreSQL, MongoDB, AWS (SQS, RDS, S3, Lambda, SageMaker, IAM, EC2), Django, Docker, Nginx, Selenium, Kubernetes
- **Tools:** Git, Jira, Postman, PgAdmin, RStudio

EXPERIENCE

Software Engineer Dec 2021 - July 2022

Qualcomm

- Spearheaded development of a distributed system to manage tests of Snapdragon SoCs, **reducing** overall time by **17%**
- Implemented front-end UI features leveraging Angular, Django, and PostgreSQL to facilitate real-time test analysis, resulting in enhanced data visualization and streamlined testing procedures
- Engineered advanced automation tools to streamline the compiler development process, **significantly reducing manual** testing time and **improving code quality**
- Optimized and refactored critical code modules, reducing application response time by **35%**; **enhancing** user experience

Full-Stack Engineer

June 2019 - Dec 2021

Accion Labs

- Built a web application to analyze X-rays and produce **severity results of Arthritis** with Angular and Flask; worked on developing neural network model to detect and classify bone joints and noise reduction using Tensorflow and AWS SageMaker; deployed end-to-end application on **AWS EC2** with **CI/CD** pipeline
- Devised a deep learning model to infer **ICD-10** codes from patient's notes leveraging **BERT** language model
- Followed agile methodology to maintain progress and identify critical milestones which enabled the team to deliver a high quality product as per the timeline
- Added integration tests and unit tests to meet **Sonarqube** code quality gate requirements for **better** detection and **enhanced** workflows; minimizing code smells by **40%**
- Developed a Chrome extension to enhance user experience for internal HR portal improving efficiency by **20%**
- Revamped an advanced dashboard employing Angular and Chart.js to monitor performance and memory utilisation of microservices, leading to a **30%** reduction in response time and a more resource-efficient system

PROJECTS

Unigrow | NextJS, Typescript, MongoDB Atlas, Redis, Pusher, TailwindCSS

- Implemented a user-friendly web application that seamlessly integrated with Canvas, the university's learning management system, aimed at enhancing student interactions and engagement within the university community.
- Orchestrated initiatives to elevate student engagement, yielding a 30% upsurge in university event participation, and fostering a more vibrant and interconnected campus community.

CrackThatInterview | React, NodeJS, MongoDB, Web-Sockets, ExpressJS

- Streamlined a web application for students to join for mock interviews with experienced professionals with video conferencing features and real-time notifications using WebRTC and WebSockets
- Integrated an adaptive test feature for students to assess technical domain knowledge and receive email notifications for time-sensitive events

Mental Well-Being Tracker | OpenAI, Langchain, NextJS, Typescript, Python, FastAPI, Docker, AWS

- Led the development and deployment of a mental well-being tracker application, leveraging Next.js and FastAPI featuring advanced mood analysis via OpenAI, dynamic mood trend visualizations, and personalized event recommendations, significantly enhancing user mental health awareness and engagement.