

Isha Nilesh Gohel

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EDUCATION

University of Massachusetts, Amherst

Expected May 2026

Master of Science in Computer Science

Amherst, MA

- **Relevant Coursework:** Algorithms in Data Science, Machine Learning, Methods of Applied Statistics, Applied Information Retrieval, Distributed and Operating Systems, Systems in Data Science

Birla Institute Of Technology and Science, Pilani

August 2018 – July 2023

Master of Science in Mathematics and Bachelor of Engineering in Computer Science

Hyderabad, India

- **Relevant Coursework:** Data Structures, Algorithms, Object Oriented Programming, Operating Systems, Databases Systems, Database Systems, Computer Networks, Foundations of Data Science, Machine Learning, Information Retrieval, Linear Algebra, Non-linear optimization, Optimization, Probability and Statistics, Graph and Networks

EXPERIENCE

Flipkart

Bengaluru, India

Software Development Engineer - I

July 2023 – July 2024

- Built and deployed **Java-based RESTful APIs** for Flipkart Health Plus and Super.Money, implementing scalable backend logic and integrating with **MySQL, MSSQL, and Bigtable** to boost performance and support 50,000+ daily requests.
- Led the design and automation of a "Token of Apology" workflow at Flipkart Health Plus, leveraging GCP tools including **Dataflow, Cloud Functions, Cloud Scheduler, BigQuery, and Bigtable**, increasing **customer retention by 22%**.
- Facilitated and constructed an SMS Insight system at the Super.Money team, using Java and Bigtable for data storage, processing, and insight generation to create customer cohorts based on their in-app journeys.
- Set up **pre-production environments on GCP** for 6 microservices to test production APIs, ensuring smooth deployment during Flipkart's Big Billion Day national sale event.

Software Development Intern

July 2022 – June 2023

- Developed and maintained **RESTful HTTP and gRPC APIs** using Java and Python for backend microservices at Flipkart Health Plus, achieving an average API latency of less than 250ms and improving application response time.
- Automated deployments using Kubernetes by setting up CI/CD pipelines for 2 backend services on AWS.

Microsoft

Remote

Mentee | Microsoft Engage Mentorship Program

June 2021 – July 2021

- VCONNECT: A **video-calling web application** for 2 users using React.js and Node.js/Express. Integrated key features including URL sharing, mute/unmute, video on/off, screen sharing, in-call messaging, and disconnect call.

UST Global

Remote

Summer Intern

May 2020 – June 2020

- Explored approaches to enhance quantum security in **Electronic Health Records (EHR)** systems.
- Analyzed lattice-based technology as a potential solution for mitigating quantum threats in blockchain networks.

PROJECTS

Early Breast Cancer Detection | *Python, OpenCV, Jupyter Notebook*

- Introduced a **hybrid feature extraction algorithm** by preprocessing images and extracting texture features through Gray Level Co-occurrence Matrix (GLCM), Haralick, Gabor, Tamura, and Local Binary Pattern (LBP) using Python.
- Conducted a comparative analysis of **advanced machine learning classifiers** on the extracted features of the mammograms, evaluating performance using metrics like accuracy and precision scores with maximum accuracy of 92%.

Distributed Image Processing System | *Python, PySpark, Hadoop HDFS*

- Designed and implemented a distributed image classification pipeline using PySpark, Hadoop HDFS, and deep learning models (CNN, ResNet50) on an image dataset
- Built a scalable preprocessing and inference system using OpenCV and PyTorch, supporting parallel image classification across single and multi-node environments.

Hotel Management System | *Java, JavaFX, CSS, MySQL*

- Designed a **hotel management application with database integration** for maintaining hotel records which includes information like customer records, room service, employee records, inventory records, working hours, and shifts.

TriggerTracker | *Java, Firebase, Gradle, Android Studio*

- Created a **Java-based Android app** with features like schedule tracking, grocery management, and file sharing.

TECHNICAL SKILLS

Languages: Python, Java, C, C++, HTML/CSS, Javascript, React, SQL, PHP, Bash

Frameworks and Libraries: Dropwizard, Node.js/Express.js, PyTorch, Tensorflow, OpenCV, Scikit-learn, NumPy, Pandas

Cloud DevOps: AWS, GCP, Docker, Kubernetes, Terraform, CI/CD

Developer Tools: Git, GitHub, IntelliJ, VSCode, Android Studio, Azure Data Studio, OpenAPI spec(OAS), Postman, JIRA

PUBLICATIONS

- Deepa Kumari, Pavan Kumar Reddy Yannam, **Isha Nilesh Gohel**, Mutyala Venkata Sai Subhash Naidu, Yash Arora, B.S.A.S. Rajita, Subhrakanta Panda, and Jabez Christopher, "**Computational model for breast cancer diagnosis using HFSE framework**" *Biomedical Signal Processing and Control*, 86:105121, 2023