

# Hritish Mahajan | Software Engineer

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## EDUCATION

### Rochester Institute of Technology

Aug 2021 - May 2025

Bachelor of Science in Computing & Information Technologies

Rochester, NY

- **GPA:** 3.80/4.00, Summa Cum Laude
- **Clubs:** Tech Director - RIT Student Government | Tech Lead - GDG @ RIT | Vice President - RIT Chess Club

## EXPERIENCE

### Machine Learning Engineer

Jun 2025 - Present

Circum Medtech

Nice, France (Remote)

- Achieved >90% sepsis prediction accuracy by deploying ML models trained on ICU data with over 200,000 records.
- Engineered real-time data pipelines integrating Arduino-based biosensors (SpO<sub>2</sub>, ECG, WBC) with ML models, streaming processed vitals to ICU monitors and a mobile application.
- Building a mobile app with React Native enabling clinicians to monitor patient vitals in real-time with intelligent alerting for critical health events.
- Collaborating with Circum's R&D team on a smart patch & catheter extension to reduce ICU infections.

### Software Engineer Intern

Jun 2024 - Aug 2024

Global Payments

Atlanta, GA

- Built new features to automate utility charge calculations across 10K+ rental units on Zego's property management software, using .NET, PHP and SQL Server.
- Helped refactor billing and utility management workflows, used CI/CD tools (Jenkins) to deploy changes.
- Led a team of 3 interns in building a mobile app to drive community engagement among Gen Z residents.

### Software Engineer Intern

May 2023 - Aug 2023

Unity Infotech

Dubai, UAE

- Built mobile banking app features using Flutter, .NET Core & SQL Server for a major private bank in Dubai.
- Integrated Google Cloud APIs to implement geotagging and live delivery routing in a local grocery app.
- Helped port mobile app to Flutter Web and refactored client & UI logic, reducing app load time by 40%.

## PROJECTS

### Predisens - Smart Catheter

Sept 2024 - Present

Python, Tensorflow, Arduino, Supabase, React Native

- Leading the development of a patented smart catheter system that uses machine learning to detect sepsis in real-time, reducing delays in diagnoses for ICU patients.
- Trained and evaluated models on MIMIC-IV and eICU datasets achieving unprecedented 91.3% accuracy and 0.95 AUC scores, a >15% improvement over existing benchmarks.
- Built real-time monitoring system processing 300+ data points/second with <200ms latency on an ICU display.

### NLP Movie Recommender

Aug 2024 - Oct 2024

Python, Scikit Learn, NLTK, Streamlit

- Built an NLP recommendation engine analyzing movie metadata using cosine similarity over bag-of-words vectors.
- Processed and cleaned a dataset of 5,000+ TMDB titles, implementing keyword normalization and stopwords filtering for better semantic matching.
- Deployed a Streamlit app for interactive recommendations, achieving 92% user relevance score in informal testing.

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript, C#, Java, SQL, Bash

**Frameworks:** .NET, React, Flutter, Angular, Node.js, Next.js, Spring Boot, Flask, Express.js

**Machine Learning:** Scikit Learn, Tensorflow, NLTK, NumPy, Matplotlib, Pandas

**Databases:** MySQL, PostgreSQL, Oracle, MongoDB, SQL Server

**Other Tools:** Git, OAuth 2.0, AWS, Google Cloud, Docker, Kubernetes, Firebase, Supabase, Jenkins