

# 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)

- Leading development on **Predisens**, a patented smart catheter system that uses ML to detect sepsis early in ICUs.
- Achieved >90% sepsis prediction accuracy by deploying PyTorch models trained on 200,000+ patient ICU records.
- Engineering real-time data pipelines integrating Arduino-connected biosensors (SpO2, ECG, WBC) with ML models, streaming 300+ data points/sec to ICU monitors with ~200 ms latency.
- Developing clinician-facing mobile app with React Native enabling patient vitals & alert monitoring in real-time.
- Collaborating with Medical Experts & Regulatory teams to ensure compliance with FDA & HIPAA standards.

### 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

### Clanker FM | [GitHub](https://github.com) | [Live Website](https://clanker.fm)

Aug 2025 - Present

Next.js, React, OpenAI API, Spotify API, Tailwind CSS, Framer Motion, Typescript, Supabase, PostgreSQL

- Designed and shipped an AI-powered bot & platform that interactively roasts your Spotify listening habits.
- Engineered "Neighbours" social discovery using weighted Jaccard similarity + Supabase/PostgreSQL to connect users with similar tastes, deployed on Vercel with edge-cached APIs (<100 ms).
- Optimized OpenAI prompt chains to cut token usage & cost per roast by ~40% while preserving context & tone.
- Built a terminal-style UI with Framer Motion animations, local caching, and exportable roast cards for social media.

### Movie Rec Engine | [GitHub](https://github.com) | [Live Website](https://movie-rec-engine.com)

Aug 2024 - Oct 2024

Python, Streamlit, NLTK, Pandas, Scikit-learn, NumPy

- Built an interactive NLP-powered movie recommendation engine; find similar titles by genre, cast, plot, or keywords.
- Processed the top 5,000+ TMDb titles, normalised metadata & reviews, and applied cosine similarity over bag-of-words vectors for fast, explainable recommendations in <4 seconds.
- Deployed on Streamlit Cloud with responsive UI and instant search & browse features.

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript, C#, Dart, Swift, Java, HTML, CSS, SQL, Bash

**Framworks:** Next.js, .NET, React, Flutter, Angular, Svelte, Node.js, Spring Boot, Flask, Express.js, React Native

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

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

**Other Tools:** Git, REST, GraphQL, AWS, Google Cloud, Figma, Docker, Kubernetes, Firebase, Supabase, Vercel