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 ICU data of 200,000+ patients.
- 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 & CE 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 | 🌐 Live Website   **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 | 🌐 Live Website   **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