SUMEDH SINHA

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SUMMARY

An aspiring Software Engineer with a strong foundation in computer science principles and hands-on experience in full-stack development. Proficient in Python, SQL, and cloud infrastructure, with a passion for building scalable and efficient software solutions. Detail-oriented, adept in collaborating within team environments and eager to contribute to innovative projects.

EDUCATION

Rutgers, The State University of New Jersey at New Brunswick — Expected Graduation: **May 2026**
Bachelor of Science in Computer Science | Dean's List Scholar — GPA: 3.6/4.0
Relevant Coursework: Operating Systems, Databases, Networks, Data Structures, Algorithms, Diverse Leadership.
Associations: CMU NexHacks; HackRU; RU HealthHack; Innovation, Design & Entrepreneurship Academy (IDEA).

PROFESSIONAL EXPERIENCE

EssilorLuxottica — May 2025 – July 2025
Information Systems Management Intern – Digital Rx Solutions — Dallas, TX
- Introduced a new customer-focused **CI/CD** pipeline for upto **25%** faster software deployments across **45+** sites in North America.
- Migrated legacy project data from Excel to **Azure DevOps** and incorporated **7** auto-sync KPI dashboards in Teams using Flows.
- Collaborated with stakeholders to add **140+** test cases with **Python** scripts across **3** test suites for targeted regression testing.
- Authored illustrated SOPs and formalized **CMMI**-aligned procedures for tracking tasks, issues and bugs by **4** global teams.

CGI — September 2024 – December 2024
Research Extern | via Rutgers MBS Externship Exchange Program — New York, NY (Remote)
- Built an on-device AI model using **Ollama** to automate classification of **1,000+** communications for response prioritization.
- Architected a **Flask** dashboard to visualize sentiment and severity scores using **10+** parameters, enabling data-driven decisions.

ACADEMIC EXPERIENCE

Rutgers University – Wireless Information Network Laboratory (WINLAB) — October 2025 – Present
Undergraduate Research Assistant (RA) — New Brunswick, NJ
- Investigating Telco Network APIs to facilitate competitive product development.

Rutgers University – Department of Computer Science — August 2024 – Present
Teaching Assistant (TA) — New Brunswick, NJ
- Instruct weekly **Python** workshops for **50+** students, offering hands-on instruction while fostering student engagement.
- Evaluate **100+** assessments with a **3**-day turnaround, ensuring timely feedback while upholding academic integrity standards.

PROJECTS

CureBytes | Intelligent MedNotes ($750 Award Winner at Rutgers HealthHack 2024) github.com/sumedhsinha/health-hack-2024
AWS, JavaScript, HTML/CSS, Google Gemini
- Deployed a web portal with **AWS Amplify** and **JavaScript** to enable AI-driven performance tracking for **100+** students.
- Trained a **Google Gemini** model with **4** rubrics for real-time autograding and monitoring by instructional staff.
- Managed **Agile** technical development for a team of **11** (including architecture design and delivery) during a **48**-hour sprint.

Tetra | Autonomous AI Workspace Assistant (CMU NexHacks) — devpost.com/software/tetra-ghbaf8
TypeScript, Python, FastAPI, FastMCP, Next.js, tailwindCSS, Supabase (SQL), ElevenLabs, Vercel
- Orchestrated a hands-free workspace using **LiveKit**, achieving **sub-300ms** latency for real-time voice control.
- Streamlined tool calling via **Arcade.dev MCP**, reducing manual scheduling input by **100%** through automation.
- Launched a **Next.js** dashboard on **Vercel**, consolidating **3** fragmented workflows into a unified voice interface.

DocPlus | Document Signing Application (in development)
Python, MySQL, Docker, Redis, Tkinter
- Reduced read latency by **86%** by engineering a predictive look-ahead caching algorithm using **Python** and **Redis**.
- Processed ~**2,100 records/sec** by architecting a denormalized ETL pipeline with automated quality validation in **MySQL**.
- Maintained **99.9% system stability** by implementing a circuit-breaker pattern with auto-recovery for **Docker** containers.

SKILLS

Languages: Python, Java, C, SQL, JavaScript, TypeScript, HTML/CSS, Bash.
Applications: AWS, Docker, Android Studio, Azure DevOps, Supabase, MySQL Workbench, Snowflake.
Tools/Libraries: Redis, Tkinter, React, Next.js, tailwindCSS, JIRA, Git VCS, SSH, GDB, OpenCV, FastMCP.
Hobbies: Aviation Photography/Plane Spotting, Cricket, Traveling, Action Movies.

EXTRACURRICULAR AND LEADERSHIP ACTIVITIES

Undergraduate Student Alliance of Computing Scientists (USACS) — August 2023 – May 2024
Technology Chair — New Brunswick, NJ

- Hosted workshops on **Python**, **Java**, and **Git** for **20+** members working on independent projects.
- Increased member retention by **30%** by executing community engagement and management strategies.