

SUMEDH SINHA

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EDUCATION

Rutgers University – New Brunswick

Sep 2022 - May 2026

Computer Science B.S. | Dean's List Scholar

GPA: 3.6/4.0

Relevant Coursework: Networks, Systems Programming, Databases, Software Methodology, Computer Architecture, Data Structures & Algorithms, Discrete Structures, Digital Technology & Disruptive Change, Organizational Leadership

Activities: HackRU Hackathon 2023-2024, RU HealthHack 2024, IFaD intern at Rutgers OIT-Identity Security division

SKILLS

Languages: Python, Java, C/C#, SQL, XML, JavaScript, HTML/CSS, Bash

Applications: Android Studio, IntelliJ IDEA, Xcode, MySQL Workbench

Tools/Libraries: Git, GDB, Gradle, OpenCV, JavaFX, JSP, JDBC, Flask, Numpy, Pandas

Concepts: OOP, Data Structures, Algorithms, Agile Development, MVC, Database Management, Networking, Sockets, TCP/IP

Interests: Application Development, AI/ML Research, Software Engineering, Networking, DevOps, CyberSecurity

EXPERIENCE

Rutgers University – Department of Computer Science

Sep 2023 – Present

Teaching Assistant (TA)

New Brunswick, NJ

- Direct **2+** weekly Python workshops for **50+** students, offering hands-on instruction while fostering student engagement
- Grade **100+** assignments with a **2** day turnaround, ensuring timely feedback while upholding academic integrity standards
- Host **3+** weekly office hours to support student growth in programming and problem-solving skills

Assignment Developer | assignment-guru.cs.rutgers.edu

May 2024 - Jul 2024

- Developed OOP and DSA assignments for **2000+** students enrolled in foundational CS courses for the 2024-25 academic year
- Participated in **5** Agile sprints in collaboration with faculty to develop assignments in alignment with course objectives & rubrics
- Wrote assignment documentation and included visual representations to support **50+** tutors

Consultants to Government and Industry (CGI Inc.)

Sep 2024 – Dec 2024

AI Research Extern (via Rutgers MBS Externship Exchange Program)

Remote

- Developed an AI model using Python and Ollama to analyze **1000+** customer interactions to enhance program efficiency
- Applied sentiment classification to identify **5+** real world concerns, informing process improvements for assistance programs
- Delivered **14** timeline-based reports detailing overall semantic trends to drive data & performance driven decision-making

HaltDos

July 2023 – Aug 2023

Software Developer Intern

Noida, India

- Conceptualized an app using **Java, Gradle & XML** to sort, track and list articles posted to **10+** news sites
- Implemented SwipeRefreshLayout, RecyclerView and Adapter design patterns to create lists of more than **1000** articles

Rutgers University – Innovation, Design & Entrepreneurship Academy (IDEA)

May 2023 – July 2023

Student Researcher

New Brunswick, NJ

- Managed **60+** greenhouse experiments with non-dispersive infrared sensors, relays for monitoring CO2 and Methane levels
- Analyzed sensor data using **Python & Raspberry Pi**, leading to new insights which can lead to a **30%** boost in crop yields

PROJECTS

CureBytes | AWS, JavaScript, Gemini, Python | Rutgers HealthHack Winner

github.com/sumedhsinha/health-hack-2024

- Deployed a web portal using AWS, React, and Python to enable AI-driven grading and performance tracking for **5000+ students**
- Fine tuned Google's Gemini with **10+** rubrics for real-time autograding and monitoring by instructional staff
- Authored code reviews and managed technical development, ensuring scalable and maintainable architecture

SecureAccess | Python, OpenCV, Flutter, MySQL

devpost.com/software/ruverified

- Led team in designing a facial recognition prototype for secure access applications for **800+** authorized personnel
- Implemented an **OpenCV & ML library** for facial feature comparison with profiles stored in a **MySQL database**, achieving **98%** recognition accuracy

BuyMe | Java, JSP, MySQL, HTML, JDBC

tinyurl.com/BuyMeAuction

- Devised a web-based auction platform using HTML & CSS to enable sales and live bidding for **200+ items**
- Combined **Java, JSP, & MySQL** to create a dynamic website with user authentication and session management
- Incorporated a custom search query filter using MySQL and Java to refine search based on **4+ parameters**

myShell | C

- Created a comprehensive command parsing algorithm for a custom shell, enabling accurate tokenization, argument handling, wildcard expansion, and support for features like piping and I/O redirection

EXTRACURRICULARS

Undergraduate Student Alliance of Computing Scientists (USACS), Rutgers University

Aug 2023 – May 2024

Technology Chair

New Brunswick, NJ

- Hosted workshops on various technologies, including **Python, Java, & Git** for **20+ members** working on projects
- Increased member retention by **30%** by planning and executing community management and retention strategies