Jatin Jain Rochester, NY
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EDUCATION

Rochester Institute of Technology **May 2028**
Bachelor of Science in Computer Science & Master of Science in Cyber Security *3.41*
Minor in Computer Engineering & Immersion in Mathematics

- **RIT Founders Scholarship for International Students – Merit-based scholarship for excellence**
- **of Computing - Dean's List – Fall 2023, 2024**

Systems & Design: Digital Systems & Design, Intro to AI, Computer Science Theory, Parallel and Distributed Systems (C#, Threading, Networking), Concepts of Computer Systems (Assembly)

Programming Languages: Python, Java, JavaScript, C, C++, Kotlin, C#, SQL, Angular, Node.js, Java Spring, REST API, Flask, FastAPI, OpenCV, PyTorch, TensorFlow, CMake, ARM Tools

Certifications: NVIDIA Accelerated Computing with Modern CUDA C++, **MIT Institute for Data, Systems, and Society (IDSS)**: Data Science and Machine Learning

Experience

Research Assistant | School of Mathematics & Statistics, National Institutes of Health
Technologies: FastAPI, Flask, Python, NumPy, Matplotlib **May 2025 - now**

- Enhanced a Type 2 diabetes simulation model by integrating 6+ metabolic variables and 10+ liver-specific reactions, boosting physiological accuracy by **~40%**.
- Reduced computation time by **90%** (from ~30s to under 3s per run) by optimizing differential equation solvers in Python.
- Developed and deployed 3 REST APIs with FastAPI, powering **25+ personalized simulations** using real-world health metrics (e.g., BMI, insulin resistance).
- Built an interactive Flask frontend, improving research visualization efficiency and usability for **5+ faculty researchers**.
- Simulated patient responses across **1,000+ parameter variations**, aiding hypothesis generation for chronic disease research.
- Generated over **15 scientific plots** with Matplotlib, used in official NIH progress reports and upcoming manuscript submissions.
- Managed 100% of version control operations (Git/GitHub) with >30 commits across 5 modular Python scripts and documentation files.
- Contributed to grant deliverables under **NIH Award #R16GM154782**, supporting federal research objectives.

Tutor | Academic Success Centre, HEOP Program **Jan 2024 - Present**

- Mentored 1700+ students in STEM courses through personalized sessions and collaborative workshops to enhance academic performance.

ACTIVITIES, CLUBS, ORGANISATIONS

Electric Vehicle Team| RIT *Firmware Team* **Nov 2023 - Present**

- **Engineered embedded firmware for APDB board using C++ and ARM protocols, improving sensor data throughput by 30%**

OASIS | RIT *Executive Board: Vice-President* **Aug 2024 - Present**

- Spearheaded operations for a 300+ member cultural organisation, coordinating logistics, sponsorships for **8+ major events(every academic year)** including Diwali and Holi.

PROJECTS

Cyber Threat Intelligence Dashboard | Python, Flask, MITRE ATT&CK, OTX **May 2025**

- Developed a full-stack dashboard to aggregate, parse, and visualize real-time cyber threat intelligence from AlienVault OTX.
- Automated IOC extraction and enrichment with MITRE ATT&CK techniques using TAXII/STIX feeds and heuristic mapping.
- Integrated CSV reporting, API key security, and public deployment via Render with GitHub CI/CD workflows.

Volunteer Management App | Java Spring, REST API | Course Project **Dec 2024**

- Developed an admin-managed volunteer platform with scheduling, donations, and a RESTful API, integrating Agile practices like CI/CD and sprint-based development.