SHATAKSHI RANJAN

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EDUCATION

Bachelors of Science in Computer Science & Information Technology and Informatics *Sept. 2021 – May 2025*
Rutgers University–New Brunswick - New Jersey, USA *GPA: 3.76, magna cum laude*
- **5x Hackathon Winner** - recognized for innovation, impact, and technical execution at national collegiate hackathons
- Selected to present **CSL Queue System at Scarlet Labs Showcase** as a scalable solution for process improvement

PROFESSIONAL EXPERIENCE

Student Community Manager - Coding and Social Lounge (CSL) *New Jersey, USA | Sept. 2023 - May 2025*
Rutgers University - Computer Science Department
- Founded, engineered, and deployed the **CSL Queue System**, a full-stack platform (React, Node.js, Google APIs) that served over 1,000 students per semester and reduced tutoring wait times by 65%
- Built real-time syncing with Google Forms API for automated intake and integrated analytics to track course demand, peak hours, and repeat visitors - enabling data-driven staffing and operational insights
- Secured **$100K in funding** by positioning the CSL Queue System as a department-wide solution for academic support
- Mentored 130+ students each semester in debugging and CS concepts while maintaining and troubleshooting 50+ iLab servers supporting coursework and faculty research

Cyber Security Intern - Data Division *Mumbai, India | June 2024 - August 2024*
Reliance JIO
- Developed **Taskify**, a secure task and project management portal using Flask and MySQL; implemented audit logging and access control to improve team productivity and data traceability by 45%
- Integrated a real-time internal chat system with auto-archiving to streamline collaboration and reduce clutter
- Demonstrated secure big data pipeline automation with Apache NiFi, Hadoop, and Spark to senior engineers, highlighting potential for 30% reduction in manual processing and improved data reliability through encryption
- Secured the platform with user authentication and vulnerability assessments aligned with InfoSec protocols

Software Development Intern *New Jersey, USA | July 2023 - August 2023*
Princeton IT Services
- Developed a headless CMS prototype with geo-targeted routing based on user location to serve region-specific content, and SEO-friendly URLs using Sanity.io, enhancing content delivery and discoverability
- Designed and deployed responsive, animated marketing pages using HTML, CSS, JS, and GSAP; boosting user engagement and reinforcing cross-device brand consistency
- Analyzed user behavior with Google Analytics to drive frontend optimizations that improved retention and conversions

LEADERSHIP & INVOLVEMENT

Marketing Director (May 2022 – May 2023), HackHERS Director (June 2023 – Dec 2023)
Women in Computer Science (WiCS), Rutgers University
- Directed HackHERS, NJ's largest femme, female, and non-binary hackathon; drove outreach and secured $26K+ in sponsorships for 200+ attendees
- Collaborated with a 20-person team to execute event logistics, speaker coordination, and attendee experience
- Ran social media campaigns and automated weekly mailing lists to boost event attendance and engagement
- Built and maintained responsive websites for WiCS and HackHERS, collaborating cross-functionally with other directors to centralize event information and enhance digital visibility.

PROJECTS

Collaborative Filtering-based Recommendation System *Python, Numpy, Pandas, Scikit-learn*
- Built a personalized recommender using MovieLens, achieving MAE of 0.7393 and RMSE of 0.9501 through data imputation, feature scaling, and model tuning; similar to market basket systems used in e-commerce
- Integrated genre-based filtering and anonymized user data to enhance explainability and user trust
- Selected as 1 of 20 projects (out of 110) for department seminar; findings and methodologies presented via **slide deck**

Mama's Garden – Smart Plant Monitoring System *Python (Flask), MongoDB, Gemini AI*
- Developed API integrations with MongoDB and Gemini AI to process and visualize real-time IoT sensor data (e.g., humidity, temperature) using Flask and Matplotlib
- Built the frontend-backend connection and implemented error handling to ensure reliable data flow and user interaction
- **Best Social Good Track Winner** at *HackHERs 2025*, recognized for impactful AI-driven sustainability solutions

Stock Trading Algorithm *ThinkOrSwim Script*
- Built a trading algorithm using MACD and RSI indicators, achieving 45% accuracy in real-time conditions.
- Automated technical analysis with graphical indicators to generate data-driven trading signals.
- Implemented stop-loss and take-profit mechanisms to improve risk management and trading efficiency.

TECHNICAL SKILLS

Programming & Development: Java, Python, C#, JavaScript/TypeScript, React, Vue.js, Next.js, Node.js, Unity, Git, Spring Boot, Docker, Flask, Django, Tailwind CSS, HTML/CSS, UI/UX (Figma), REST API Development, Microservices, CI/CD
Data & Machine Learning: Big Data (Hadoop, Spark), MongoDB, SQL, MATLAB, Matplotlib, Numpy, Scikit-Learn, Pandas, TensorFlow, Tableau, OpenCV, MediaPipe
Systems & Cloud Platforms: Windows, Linux/Unix, PowerShell, Apache, Google Cloud, AWS