

VARAD RANE

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Aspiring software engineer with a passion for building scalable, efficient, and user-centric solutions, driven by a strong technical foundation and a commitment to continuous learning.

EDUCATION

- **New Jersey Institute of Technology** Newark, NJ
Master of Science in Computer and Information Science; GPA: 4.00 *Jan 2025 - May 2026*
- **Vivekanand Education Society's Institute of Technology** Mumbai, India
Bachelor of Engineering in Electronics; GPA: 3.72 (9.32/10.0) *Aug 2018 - May 2022*

EXPERIENCE

- **Teaching Assistant and Grader** Newark, NJ
New Jersey Institute of Technology *Sep 2025 - Present*
 - **Grading:** Graded assignments, quizzes, and midterms for CS 116 (C++) and CS 630 (Operating Systems) for 30–40 students via Canvas & Gradescope.
 - **Tutoring:** Led weekly 1-hour office hours to clarify concepts and debug assignments and provided rapid email support to unblock students and maintain their learning momentum.
 - **Operations & Mentorship:** Proctored the CS 116 midterm and onboarded a new TA, aligning workflows and grading standards.
- **Deputy Manager - IT Software** Mumbai, India
Kotak Securities *Jul 2022 - Aug 2024*
 - **AD Authentication:** Streamlined Active Directory authentication by introducing token-based sessions, increasing request throughput by 30% and tightening access control across user-facing APIs.
 - **Notifications API:** Designed and built an Alert-Management service using .NET/SQL which notified the concerned team instantly when legacy services were overloaded which helped lowering downtime by 15%.
 - **API Modernization:** Packaged legacy DB-access logic into a drop-in .NET library by applying SOLID principles which was used by 12 APIs across 10 production servers, removing two network hops and resolving socket-exhaustion.
- **Senior Developer** Mumbai, India
Renaissance Cell, VESIT *Summer 2021*
 - **Auth & Upload Portal:** Implemented college-email based authentication for secure student verification and a bulk web uploader for digitally-signed certificates, ensuring verified issuance while greatly reducing administrative effort.
 - **Website & Discord Bot:** Built a website and Discord chat-bot to distribute extracurricular certificates on-demand, improving accessibility and student engagement.

PROJECTS AND PUBLICATIONS

- **Stream Chat Organizer:** Designed a simple chrome extension to add visual elements to YouTube live chat for better readability and improved interaction.
- **Deep Learning:** Published a research paper titled **Automated Crack Severity Level Detection and Classification for Surface Cracks Using Deep Convolutional Neural Networks**,

SKILLS

Programming Languages	C#, Go, Python, JavaScript/TypeScript, C, C++, Bash, SQL
Frameworks & Libraries	ASP.NETCore, Node.js, Angular, SvelteKit, TensorFlow, OpenCV, Pandas, Tailwind CSS, SASS/SCSS
Cloud/DevOps	AWS, Azure, Docker Stack, Kubernetes, Nginx, GitHub Actions
Databases	PostgreSQL, Microsoft SQL Server, MySQL, MongoDB, Firebase
Tools	Git, Postman, Figma, Puppeteer, FFmpeg, Blender, MATLAB
Languages	English, Hindi, Marathi

ACTIVITIES AND LEADERSHIP

- **Technical Lead, Executive Board:** Google Developer Student Clubs (GDSC), NJIT.
- **Workshop Instructor:** Delivered Robotics lectures with a hands-on lab to grow interest in electronics.
- **Volunteer Educator, U&I:** Developed curriculum and taught sessions for underserved students.