

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

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

EXPERIENCE

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| Teaching Assistant and Grader | Newark, NJ |
| • <i>New Jersey Institute of Technology</i> | <i>Sep 2025 - Present</i> |
| ○ 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. | |
| Deputy Manager - IT Software | Mumbai, India |
| • <i>Kotak Securities</i> | <i>Jul 2022 - Aug 2024</i> |
| ○ AD Authentication: Streamlined Active Directory authentication by introducing token-based sessions, increasing request throughput by 30% and tightening access control across user-facing APIs. | |
| ○ Parallel Queue Processing: Developed Angular + .NET full-stack applications with queue-based processing to aggregate and serve data from multiple SQL databases, improving data retrieval throughput and reliability for high-concurrency workloads. | |
| ○ 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 and Cache Optimization, removing two network hops, improving latency and resolving socket-exhaustion. | |
| Senior Developer - Internship | Mumbai, India |
| • <i>Renaissance Cell, VESIT</i> | <i>Jan 2021 - Aug 2021</i> |
| ○ Auth & Upload Portal: Implemented college-email based authentication for secure student verification and a bulk uploader for digitally-signed certificates, ensuring verified issuance and 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. | |

SKILLS

Programming Languages	C#, SQL, Python, JavaScript, TypeScript, GoLang, C, C++, Bash
Frameworks & Libraries	ASP.NET Core, Node.js, AngularJS, SvelteKit, TensorFlow, OpenCV, Pandas, Tailwind CSS, SASS/SCSS
Cloud/DevOps	AWS, Azure, Docker Stack, Kubernetes, Nginx, GitHub Actions
Databases	PostgreSQL, MS-SQL, MySQL, MongoDB, Firebase
Tools	Git, Postman, Figma, Puppeteer, FFmpeg, MATLAB

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**.

ACTIVITIES AND LEADERSHIP

- **Technical Lead, Executive Board:** Google Developer Student Clubs (GDSC), NJIT.
- **Student Tech Educator:** Organized and led multi-session workshops on AI, MCP, and VS Code powered by GitHub Copilot and current Microsoft technologies for student audiences.
- **Workshop Instructor:** Delivered Robotics lectures with a hands-on lab to grow interest in electronics.