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Computer Science Graduate Student at NYU seeking Summer 2026 Software Engineering Internships | Brings in 3 Years Experience with Java, C++, Python, JavaScript, SQL and cloud platforms

EDUCATION

- **New York University, Courant Institute** New York, NY
M.S. Computer Science (GPA: 4.00/4.00) *Sep. 2025 – Present*
 - Coursework: Parallel Programming, Programming Language Theory, Operating Systems, Algorithms, Abstract Interpretation, Compiler Construction
 - TA for Operating Systems Course; Student leader and co-president of a graduate student club
- **Visvesvaraya National Institute of Technology** Nagpur, India
B.Tech. Computer Science and Engineering *July 2018 – May 2022*
 - Coursework: AI, Neural Networks, NLP, Cryptography, Computer Systems, Cryptography, Image Processing.
 - Chaired MUN; cultural festival organizer; founding member of debate club; volunteer student-teacher for a non-profit.

EXPERIENCE

- **Center for Development of Telematics (C-DOT)** New Delhi, India
Scientist 'B' (Senior Software Engineer) *June 2024 – July 2025*
 - Automated operational workflows with ReactJS interfaces and backend APIs, reducing response time by **50%**.
 - **Mentored a team of 4 developers**; oversaw code and design reviews, test planning, and release lifecycle management.
 - Implemented an in-house ASN.1 parser in Python for 4G/5G signalling, eliminating licensing costs and reducing integration overhead.
- *Research Engineer (Software Engineer)* *August 2022 – June 2024*
 - Designed and developed a nationwide Cell Broadcast System deployed across 2M+ mobile towers in major global telecom operators using Java, Redis, and RabbitMQ; achieved **99.999% uptime**.
 - Developed native C++ libraries integrated with Java microservices, yielding **14× performance improvements** in mission-critical workloads.
 - Built real-time monitoring dashboards (React + Node) for millions of network nodes, **increasing disaster-alerting visibility and operational uptime by 20×**.
 - Optimized signalling pathways, **improving effective system signaling capacity by 13×** for emergency alerting.
 - Integrated legacy 2G OEMs to enable **100% rural coverage**, expanding reach from 80% to full nationwide availability.
 - Enhanced SACHET—India's national disaster-alerting platform—through an event-driven architecture for high-load disaster conditions.
 - Optimized geoprocessing pipelines using PostGIS for highly granular and low-latency geo-targeted alerting.

PROJECTS

- **Parallel Chess Engine Based on Tree Search Algorithm (2025)**— Implemented using Alpha Beta Pruning and a Full Tree Min-Max search. Written in a parallel dialect of SML.
- **Efficient Community Detection in Graph Networks (2022)**— Randomized centrality algorithm for large networks; awarded Best Paper & Presentation in Communications Track.
- **Captcha Library (2024)**— Offline CAPTCHA generation/verification for isolated NodeJS environments.
- **TOTP Library (2024)**— Java implementation of TOTP (RFC 6238), compatible with Google/Microsoft Authenticator.

SKILLS

- **Languages:** C++, Java, Python, JavaScript, C, OCaml, Standard ML
- **Databases:** PostgreSQL, SQL, MongoDB, Redis
- **Frameworks/Tools:** Spring Boot, Node.js, React, RabbitMQ, Express, Git, Shell scripting, HTML/CSS, Docker