

Shammy Kumar

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EDUCATION

Stony Brook University <i>Master of Science in Computer Engineering</i>	Stony Brook, NY Aug 2025 – May 2027
Guru Gobind Singh Indraprastha University <i>Bachelor of Technology in Electrical & Electronics Engineering</i>	Delhi, India Aug 2016 – Sep 2020

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Go, C++, SQL
Frameworks: Spring Boot, React, Angular 12, Node.js, Express, JUnit, Mockito
Cloud & DevOps: AWS, GCP, Azure, Docker, Jenkins, CI/CD, Git, GitHub Actions, SonarQube
Databases & Messaging: PostgreSQL, MongoDB, MySQL, Redis, RabbitMQ, Kafka
AI/ML: PyTorch, TensorFlow, HuggingFace, SciBERT, NER, NumPy, Pandas

EXPERIENCE

Bank of America <i>Software Engineer</i>	Oct 2022 – Jul 2025 Gurugram, India
– Architected the migration of mission-critical legacy UI from AngularJS to Angular 12 , reducing technical debt by 30% and improving frontend performance by 25%.	
– Strengthened enterprise security by implementing Role-Based Access Control (RBAC) , resolving 85% of security vulnerabilities and ensuring 100% audit compliance.	
– Optimized high-reliability financial modules using Spring Boot , achieving 90%+ unit test coverage and decreasing production defects by 15%.	
– Partnered with cross-functional teams to deliver 90+ user stories , enabling seamless tax payment processing for millions of users across the APAC region.	
Infosys <i>Systems Engineer</i>	Jan 2021 – Oct 2022 Gurugram, India
– Transitioned a legacy monolithic application to a Microservices architecture , reducing page load times by 40% and doubling system scalability.	
– Boosted SQL database efficiency by 60% through strategic data segmentation and index tuning, significantly reducing query latency.	
– Directed full-lifecycle QA and bug resolution for enterprise UI/Backend modules, resolving 80+ critical defects .	

PROJECTS

Fault-Tolerant HTTP Load Balancer <i>Go, Network Programming</i>	Dec 2025
– Built a high-availability load balancer in Go implementing active health monitoring and automated failover for 10k+ concurrent requests.	
– Applied round-robin algorithms and mutex-based concurrency control to manage traffic across active backends with zero downtime.	
AI Citation Parser using Transformers <i>Python, SciBERT, NLP</i>	Nov 2025
– Engineered a SciBERT-based NER model leveraging the GIANT dataset from Harvard Dataverse (1B+ synthetic citations), achieving a 95% F1-score .	
– Built a scalable pipeline to process a 512GB XML subset, implementing BIO tagging for token classification.	
– Fine-tuned transformer models for high-variance formats, reducing manual metadata extraction time by 90% .	
Automated Financial Workflow Engine <i>Java, Spring Boot, TIFF Processing</i>	Apr 2023
– Designed and deployed a specialized engine to automate the processing of legacy TIFF-formatted cheques, clearing a \$7M+ backlog .	
– Integrated engine with clearinghouse APIs for real-time tracking, reducing manual processing intervention by 70%.	

RESEARCH PUBLICATIONS

Machine Learning Approaches for Entity Extraction from Citation Strings	Nov 2023
– Published in Decision Intelligence, Lecture Notes in Electrical Engineering, Springer .	