

Shriya Yarrapureddy Sarath

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EDUCATION

Northeastern University Boston, MA <i>Master of Science in Computer Science</i>	Sept. 2025 – May 2027 (expected)
PES University Bengaluru, KA, India <i>Bachelor of Technology in Computer Science and Engineering</i> <i>Specialization in Network and Cyber Security</i>	Oct. 2020 – May 2024

EXPERIENCE

William O' Neil India Pvt. Limited Bengaluru, India <i>Software Development Intern</i>	Dec. 2024 – July 2025
- Architected and deployed a shift management web app (JavaScript, HTML/CSS, MSSQL) that automated scheduling workflows for 20+ employees, eliminating 10+ hours of manual coordination monthly. - Designed and optimized SQL queries and data pipelines to extract and transform U.S. equity market data, improving reliability and performance of daily analytics workflows. - Led feasibility analysis of legacy SQL database architecture for AWS cloud migration, documenting 15+ critical dependencies and producing a refactoring roadmap adopted by the engineering team.	
ActiveBytes Technologies Pvt. Ltd. Bengaluru, India <i>Product Development Intern</i>	Jan. 2024 - June 2024
- Orchestrated and architected an interconnected and automated honey-pot, threat intelligence and incident response system pipeline. - Designed and developed a multi-threaded rule-based threat detection engine using Python and Rust to identify SQL injection, XSS, and path traversal attacks across live log streams, integrating threat intelligence feeds for automated classification. - Implemented a high-performance concurrent log analysis engine in Rust using Tokio, processing 90,000+ events with sub-250 ms latency through asynchronous task scheduling and multi-threaded execution.	

PROJECTS

Java Code Refactoring Engine <i>Java, JavaParser, JUnit 5, Maven</i>	Jan. 2026 – current
- Engineered an AST-based analysis engine using JavaParser to detect 5+ code smell categories across multi-file Java codebases exceeding 1,000+ LOC. - Built a rule-based transformation engine applying SOLID principles to autonomously refactor non-compliant code, achieving 90%+ refactor-rate across multiple Java classes while preserving semantics. - Validated via a 20-case JUnit 5 test suite with PIT mutation testing, achieving a 75% mutation score.	
Heal I/O — Chronic Illness Health Tracker <i>React, Node.js, Express.js, MongoDB, Passport.js, Socket.io</i>	Feb. 2026 – March 2026
- Built and deployed a full-stack chronic illness tracker (React, Node.js, Express, MongoDB) with Passport.js session auth, 5 MongoDB collections, and full CRUD — validated by 20+ real users. - Engineered a client-side analytics engine computing sleep-pain correlations across 7/30/90-day trends with 7 interactive visualizations and exportable PDF health reports.	
AlgoLearn - Algorithm Learning Platform <i>Node.js, Express.js, MongoDB, JavaScript, HTML5 Canvas API, RESTful APIs</i>	Dec. 2025 – Feb. 2026
- Developed and deployed a full-stack algorithm learning platform on Render with Canvas-based visualizations for 4 sorting algorithms, featuring real-time playback controls and complexity analysis. - Built a REST API with Express.js and MongoDB, handling quiz submissions, user progress tracking, and leaderboard rankings via aggregation – serving 20+ users with 50+ quiz submissions.	

TECHNICAL SKILLS

Languages: Java, Python, C, C++, JavaScript, TypeScript, SQL, Rust
Frontend, Backend & Systems: HTML, CSS, React, Next.js, Tailwind CSS, Streamlit, Node.js, Express.js, Flask, FastAPI, Redis, Docker, AWS EC2, AWS S3, AWS RDS, Celery, Spring Boot, REST APIs, CI/CD Automation, GitHub Actions, Linux/Unix, Agile/Scrum, Windows Server, PostgreSQL, MySQL, MongoDB, MSSQL
Tools & Libraries: Git, PyTorch, TensorFlow, scikit-learn, JavaParser, Selenium, OpenAI API, LangChain, LangGraph, GitHub Copilot, JUnit, Maven, Gradle, PIT, Agentic AI, Microsoft Excel, Microsoft Powerpoint, Kubernetes, Jira