NEELKAMAL RANA

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PROFILE

MS in Computer Science (May 2025) with 3+ years of experience in Java and Full-Stack development. AWS Certified, skilled in building scalable microservices and ML pipelines with high availability and low latency.

EDUCATION

Pace University, New York, NY   Aug 2023 – May 2025

Master of Science in Computer Science

Concentration: Software Development   GPA: 3.80/4.0

Courses: Data Structures and Algorithms, Parallel Computing, Artificial Intelligence, Full Stack Development

TECHNICAL SKILLS

Programming: Java (Advanced), Python, JavaScript/TypeScript, C++, MySQL, Android(Kotlin)

Frameworks: React JS, Node JS/Express, PyTorch, Spring Boot, Tailwind CSS

AWS & DevOps: EC2, S3, Lambda, DynamoDB, Aurora, CDN, Fargate, Lightsail, Docker, GitHub Actions

Database: MySQL, MongoDB, PostgreSQL, DynamoDB

Concepts: Object-Oriented Design, Data Structures & Algorithms, Design Patterns, RESTful Services, Distributed Systems, CI/CD, Agile, Scrum, Jira

CERTIFICATIONS

Amazon AWS Certification Cloud Practitioner	2025
HackerRank Software Engineer	2025
HackerRank FrontEnd Developer(React)	2025
HackerRank Problem Solving(Intermediate)	2025

PROFESSIONAL EXPERIENCE

Associate Software Engineer – HCLTech   Nov 2021 – Aug 2023

- Led the deployment of a real-time courier tracking module used by 125+ companies, enabling tracking of 60M+ parcel statuses daily.
- Created a reusable JAR for transforming EDI logistics data into JSON/XML, improving data onboarding speed by 30% across 50+ partner systems.
- Migrated codebase from Camel to Java DSL, boosting shipment processing volume from 40M to 60M per day.
- Optimized data retrieval by integrating Redis caching, improving API response time and reducing backend load.
- Redesigned the data pipeline using ELK and RabbitMQ, increasing polling speed from 2K to 5K records/sec and enhancing system load capacity by 60%.

PROJECTS

CyberSentinel *(React.js, Flask, Python, BERT, MongoDB, OpenAI API)*   GitHub

- Built an AI-powered cybersecurity platform that detected 95% of phishing and fraud attempts using BERT and Random Forest models.
- Deployed as microservices with JWT authentication, real-time alerts, and horizontally scalable architecture on AWS.
- Enabled security teams to analyze over 10K enterprise emails and visualize phishing patterns during testing.

Attendify *(React, Flask, Python, face_recognition, OpenCV, PyTorch)*   GitHub

- Engineered a face recognition-based attendance system with 97% accuracy in identifying participants from uploaded screenshots.
- Incorporated dashboards, face enrollment, real-time summaries, and filters for meetings and virtual events.

MoveEasy *(MERN Stack, React.js, Node.js, MongoDB, Express, AWS)*   GitHub

- Developed a full-stack web platform using the MERN stack to connect vehicle owners with customers seeking moving services. Designed an interactive React.js portal enabling user profile creation and location-based mover search.
- Implemented a MongoDB database to manage user authentication and profile data, and integrated Express APIs to streamline front-end and back-end communication, reducing configuration overhead and enhancing scalability and request throughput.

SkyConnect *(React.js, Spring Boot, Java, Dijkstra's Algorithm)*   GitHub

- Created a full-stack web application to calculate shortest flight paths between 500+ airports and 10,000+ using Dijkstra's Algorithm.
- Delivered intuitive routing, total distance calculations, and a modern React frontend.

Swastha Sanchar *(Android Studio, Jetpack Compose, Firebase)*   GitHub

- Designed a wellness-focused Android app with Firebase-backed scalability and mobile-first experience.
- Empowered users to organize events, track goals, and engage in community-driven wellness activities.
- Integrated group interactions, multilingual support, and push notifications for continuous engagement.