

# SWANITH AMBADAS

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LinkedIn | LeetCode | Portfolio

## EDUCATION

**University at Buffalo, SUNY** – Master of Science in Computer Science, GPA: 3.86 Jun 2025  
**Vellore Institute of Technology** – Bachelor of Technology in Electronics & Communication Aug 2021

## WORK EXPERIENCE

### Cognizant India Pvt. Ltd., India

**Software Development Engineer** Jun 2022 – Dec 2023

- Reduced manual efforts by 100 hours per market by analyzing requirements and building reusable base code.
- Drove down processing time by 75% and error rates by 90% by integrating NSDL KYC and PAN validation into the credit-card workflow.
- Led a team of 4 engineers to deliver integration features on schedule, cutting deployment cycles by 25% and post-release defects by 20%, while mentoring juniors and aligning client expectations.
- Amplified test execution efficiency by 30% by collaborating and effectively communicating with the testing team to clear the backlog of automated test cases.

**Junior Software Development Engineer** Jul 2021 – May 2022

- Streamlined application processing by eliminating 3,000 ineligible cases in two months via automated API-based fraud risk checks – like low-income declines and fraudulent applications.
- Expedited feature sign-off by 20% by translating client feedback into technical requirements and delivering targeted demo sessions.
- Fostered collaboration with business analysts to refine requirements, cutting client review cycles by 15%

**Software Engineering Intern** Jan 2021 – Jun 2021

- Enabled seamless service for 500+ concurrent users by decomposing requirements and architecting a full stack web app with Spring Boot, HTML/CSS, and JavaScript.
- Optimized API response times by 30% by structuring and developing 15+ RESTful endpoints based on in-depth data-flow analysis.

## COMPUTER SCIENCE PROJECTS

### Chest X-ray Image Analysis using Deep Learning: *Python, PyTorch, Jupyter*

- Accelerated CNN model training by 300x through Autoencoder-based image compression.
- Augmented model robustness by training with 2500 synthetic X-ray images generated via GANs to address data imbalance.

### Ride-sharing Microservice Architecture: *Docker, Kubernetes, AWS (ECS, RDS, S3), React, JavaScript*

- Orchestrated a microservices framework handling 20K+ requests/min across three AWS Availability Zones with auto-scaling and load balancing.
- Mitigated downtime by 90% and securely managed 500+ GB of data across deployments and GitHub-based version control.

### Book Recommendation System: *Python, Flask, HTML, CSS, SVD, Collaborative Filtering*

- Aggregated and analyzed 200K+ rows and benchmarked Random Forest, KNN, neural nets, and collaborative filtering; achieved best results (RMSE 0.82, MAE 0.65) with user-based SVD.
- Launched a Flask web app delivering top 10 personalized recommendations and visualization dashboards, that boosted click-through on recommended titles by 18%.

### Ticket Booking System (Full Stack): *Spring Boot, React, Angular, PostgreSQL*

- Enabled 10,000+ users with 99.9% uptime by engineering a concurrent ticket platform and optimizing SQL queries through robust indexing, cutting load times by 40%.

## SKILLS & TOOLS

**Languages:** Java, Python, C, C++, SQL, JavaScript, HTML, CSS

**Databases:** MySQL, PostgreSQL, MongoDB, Redis

**Frameworks & Tools:** Spring Boot, React, Docker, Kubernetes, Twilio, Trello, AWS, Tableau

**Certifications:** Docker, Java, Hackathons, Kubernetes (CKA)

## AWARDS & INVOLVEMENT

**Speaker**, CSE Workshop Seminar on Cloud Computing (Docker), University at Buffalo Apr 2025

**Speaker**, CSE Workshop Seminar on Data Structures and Algorithms, University at Buffalo Mar 2025

**Membership Lead**, IEEE Student Chapter, Vellore Institute of Technology Aug 2019 – Jun 2020

**Organizer**, Riviera Cultural Fest, Vellore Institute of Technology Sep 2018 – Feb 2019