SWANITH AMBADAS

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LinkedIn | LeetCode

EDUCATION

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

WORK EXPERIENCE

Cognizant India Pvt. Ltd., India

Software Development Engineer: — Jun 2022 – Dec 2023

- Developed reusable base code for new-market integrations, reducing manual efforts by 100 hours per market.
- Integrated NSDL KYC verification and PAN validation into the credit-card application process, reducing processing time by 75 %.
- Lowered manual error rates by 90 %, improving customer experience and enabling smoother coordination between business and technical teams for more scalable operations

Junior Software Development Engineer: — Jul 2021 – May 2022

- Leveraged APIs to implement automated risk checks—such as validating low-income status and detecting fraudulent applications—for the India market.
- Enabled immediate declines of ineligible applications, cutting processing load by approximately 3,000 applications within a two-month period.

Software Engineering Intern: — Jan 2021 – Jun 2021

- Designed and implemented full-stack web application using Java Spring Boot, and HTML, CSS, JavaScript, ensuring seamless user experiences and robust functionality for over 500 concurrent users.
- Created 15+ RESTful APIs using Java Spring Boot, enabling efficient communication between the client-side applications and server, while ensuring data security and integrity, reducing API response time by 30%

COMPUTER SCIENCE PROJECTS

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

- Engineered a highly concurrent ticket booking platform supporting 10,000+ users, employing object-oriented best practices.
- Maintained 99.9% uptime, reducing load time by 40% through robust backend design and efficient SQL queries.

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

- Built an Autoencoder-based model to compress X-ray images, accelerating downstream CNN training by 300 times.
- Used GANs to generate 2500 new synthetic images given the paucity of data and data imbalance to build a more robust and accurate way to build the CNN model.

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

- Designed and deployed a microservices architecture, enabling automatic scaling and load balancing to handle 20 K+ requests per minute across 3+ AWS Availability Zones..
- Achieved a 90 % reduction in downtime, securely managed 500 GB+ of data, and maintained robust version control for all services via GitHub.

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

- Collected and processed 200 K+ rows, then benchmarked Random Forest, KNN, neural networks, and collaborative-filtering models; user-based SVD achieved the best results (RMSE 0.82, MAE 0.65).
- Deployed a Flask web app that delivers Top 10 personalized recommendations and visualizes user tastes, improving engagement and recommendation accuracy.

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 & INVOLVMENT

Speaker, CSE Workshop Seminar on Cloud Computing (Docker), University at Buffalo — Mar 2025
Speaker, CSE Workshop Seminar on Data Structures and Algorithms, University at Buffalo — Apr 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