SWANITH AMBADAS

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[LinkedIn](#) | LeetCode

EDUCATION

Master of Science: Computer Science, University at Buffalo, SUNY, June 2025 - GPA: 3.86
Bachelor of Technology: Electronics & Communication, Vellore Institute of Technology, August 2021

WORK EXPERIENCE

Cognizant India Pvt. Ltd., India

Software Development Engineer: June 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%, and lowering manual error rates by 90%. This initiative improved customer experience, allowing for smoother coordination between business and technical teams and more scalable operations.
- Collaborated on ambiguous product requirements to deliver scalable backend features, contributing to end-to-end user experiences aligned with organizational goals.

Junior Software Development Engineer: July 2021 – May 2022
- Leveraged APIs to implement automated RISK checks, like validation of low-income status and detection of fraudulent applications for India market. Resulting in immediate declines in ineligible applications, reducing processing load by approximately 3,000 applications within a 2-month period.

Software Engineering Intern: Jan 2021 – June 2021
- Designed and implemented full-stack web applications using Java Spring Boot for the backend and HTML, CSS, JavaScript as front-end technologies, ensuring seamless user experiences and robust functionality.
- Created RESTful APIs using Java Spring Boot, enabling efficient communication between the client-side applications and server, while ensuring data security and integrity.

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, showcasing early use of large language model-adjacent techniques in AI-powered automation.

Ride-sharing Microservice Architecture: *Docker, Kubernetes, AWS (ECS, RDS, S3), React, JavaScript*
- Designed and deployed scalable microservice architecture with container technologies, enabling automatic scaling and load balancing services to handle high traffic efficiently across multiple AWS availability zones.
- Integrated AWS ECS, RDS, and S3 to ensure seamless scaling, multi-region availability, and secure data storage for microservices, and version control with GitHub.

SKILLS & TOOLS

Languages: Java, Python, C, C++, SQL, JavaScript.
Databases: MySQL, PostgreSQL, MongoDB, Redis (Familiarity with SQL Server).
Frameworks & Tools: Spring Boot, React, Angular, Docker, Kubernetes, Twillio**,** Trello, AWS (ECS, RDS, S3)
Other: HTML/CSS, Object-Oriented Design, RESTful APIs, Microservices, Tableau.
Methodologies: Agile/Scrum.

AWARDS & INVOLVMENT

Speaker, CSE Workshop Seminar on Cloud Computing (Docker), University at Buffalo   March 2025
Speaker, CSE Workshop Seminar on Data Structures and Algorithms, University at Buffalo   April 2025
Membership Lead, IEEE Student Chapter, Vellore Institute of Technology   August 2019 – June 2020
Organizer, Riviera cultural fest, Vellore Institute of Technology   September 2018 – Feb 2019