

SARVESH SIRAS

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EDUCATION

Carnegie Mellon University	Pittsburgh, PA
Master of Information Systems Management (GPA: 4.05) (Dean's List)	Expected Graduation: Aug 2025
Coursework: Distributed Systems, Machine Learning in Production, Data Structures and Algorithms, Introduction to Deep Learning, Object Oriented Programming in Java, Design Thinking, Statistics, Generative AI Lab	
College of Engineering Pune (COEP) Technological University	Pune, India
Bachelor of Technology (B.Tech.), Information Technology (GPA: 3.61)	Aug 2017 - May 2021
Coursework: Data Structures and Algorithms, Distributed Systems, Principles of Programming Language, Computer Networks, Operating Systems, Relational Database Management Systems, Software Engineering	

PROFESSIONAL EXPERIENCE

Carnegie Mellon University, Heinz College	Pittsburgh, PA
Graduate Teaching Assistant	January 2025 – March 2025
<ul style="list-style-type: none">Facilitated engaging classroom discussions and organized review sessions to reinforce course conceptsManaged grading tasks and maintained the course website to ensure seamless access to learning resources	
Mastercard	Pune, India
Software Development Engineer II	July 2021 - July 2024
<ul style="list-style-type: none">Engineered secure, fault-tolerant REST and Async APIs for a cloud based global tokenization platform capable of handling 1500 transactions/second that enhanced notification rate for platforms like Apple Pay, Samsung Pay, Amazon Pay, etc. by 50%Spearheaded migration to microservices architecture, improving scalability and performance of the systemLeveraged tools like Splunk and Dynatrace to analyze the performance of critical features, identifying and resolving bottlenecks to enhance overall system efficiency 3 timesPartnered cross-functionally with product managers and engineers to define technical requirements, plan Agile sprints, and ship high-impact software features—accelerating delivery timelinesExcelled in a fast-paced, dynamic environment by managing multiple concurrent projects and leading detailed code reviews, resulting in improved code quality, reduced development time by 60%	
Mastercard	Pune, India
Software Engineer Intern	May 2020 - June 2020
<ul style="list-style-type: none">Partnered with the Operations and Technology team to develop an e-commerce REST application using technologies like Spring boot, Java, React, and H2 for in-house enterprise applicationsDevised mocking framework to enable Rapid Application Development that reduced prototyping time by 50%	

SKILLS & CERTIFICATIONS

Programming Languages: C, C++, Java, Python, SQL, HTML, CSS, JavaScript, PHP

Technological Skills: Data Structures and Algorithms, DBMS, Spring Boot, Git, Kafka, Splunk, Dynatrace, Linux, Unix, CI/CD, LLMs, Postgres, SDLC, Oracle SQL, Apache Spark, AWS, NoSQL, Cryptography, MongoDB, Android

Certifications: IBM Machine Learning Professional Certificate, Specialization in Python by University of Michigan

ACADEMIC PROJECTS

Production-Ready Movie Recommendation System	Jan 2025 – Present
<ul style="list-style-type: none">Designed a movie recommendation system using collaborative filtering, serving 1M+ users with Python/Flask, achieving 99% service availability, handling >2K daily requests with <800ms latencyDesigned modular ML pipeline with Kafka-based ingestion, feature engineering, and model training using PythonAutomated infrastructure testing and CI/CD with Jenkins and <code>pytest</code>, achieving 90%+ code coverageContainerized services with Docker and implemented rolling updates, Prometheus-Grafana monitoring, and A/B testing infrastructure and load balancing using nginxAnalyzed fairness, security, and feedback loops using telemetry data; detected bias and proposed mitigation for data poisoning attacks	

LEADERSHIP & VOLUNTEERING

CMU AI Club, CMU Chess Club	Aug 2024 – Present
Pro Bono Consultant Lead, Bal Utsav	Aug 2021 - Oct 2021