

Education

University of Massachusetts Amherst

Jan 2023 – Dec 2024

Masters of Science (M.S.) in Computer Science

CGPA: 3.75/4.0

(Coursework: System Defense and Test, Intelligent Visual Computing, Internet Security, Distributed Systems, Advanced Algorithms, Database Design and Implementation, Fixing Social Media)

Indian Institute of Technology Madras (Chennai, India)

2015 – 2019

Bachelors of Technology (B.Tech.) in Aerospace Engineering

CGPA: 8.08/10.0

(Relevant Coursework: Algorithm Analysis, Data Structures, Internet of Things, Discrete Math, Statistics and Probability)

Technical Skills

Programming/Scripting Languages: C, C++, Java 11 (Reactive), Python, ReactJS, SQL (MySQL & Oracle), Scala, Hive
Frameworks: Springboot, Kafka, Elasticsearch, Grafana, Splunk, Spark, Selenium, Liquibase, Cypress, Jest, Mockito, Pytorch
Cybersecurity (Penetration Testing): Kali, Netcat, Nmap, Metasploit, Nessus, ARP poisoning, DNS spoofing, Ettercap

Professional Work Experience

JP Morgan Chase & Co.

Jul 2021 – Dec 2023

Software Engineer II

Bangalore, India

- Contribute to development of Connect CRM¹ app - a hub for client relationship activities for front-desk JPMC advisors
- Develop new features for its microservices and web-apps using ReactJS, rxJava, SpringBoot, Kafka, Elasticsearch, K8s²
- Perform daily health monitoring for the app and worked with advisors in real-time to identify and resolve user issues/bugs
- Devised and constructed a high-impact email utility, using Java's SMTP³ server and Kafka messaging, achieving daily avg. communication of 35 emails across 4 regions, targeting \$500M investments in alternatives amongst high net-worth clients
- Architected a utility to send personalized emails to clients, by processing 5M+ records weekly (ETL⁴) & analysing a client's investment patterns from them; created an orchestrator microservice to route email requests to JPMC mailing engine
- Ideated and implemented an improved design for the Client Type Conversion utility and received positive user feedback for a seamless UX; created a chart-based summary dashboard for advisors to track and visualize clients' investment history

American Express Pvt. Ltd.

Jul 2019 – Jun 2021

Software Engineer I

Bangalore, India

- Led the development of Oysterplus - creating ML-based custom card offers for first-time Amex website visitors in < 100ms
- Steered the full-stack build of an internal app designed for the ML team to input configuration, using Java, JS and MySQL
- Engineered an RL⁵-based spring-boot microservice to renew the website's traffic allocation for each card-offer, using MAB⁶ algorithms like Upper Confidence Bound and Bayesian Bandit combined with a temporal feedback loop
- Built a stateless, metadata-based spring-boot app. to validate an API's JSON payload in < 0.5 seconds, preparing the LLD⁷ and database schema and writing a python script to parse validation rules from a yaml file for any microservice
- Reconstructed the legacy email-based report-generator using Python and Scala to compute 12 summary metrics of 10,000 daily-ingested data records via Hive; by fixing bugs, removing code-redundancy by 70% and revamping computation logic
- Created an async. API using Spring webflux, to provide PMML⁸ (hosting an ML model) validation as a service, by coding an algorithm to evaluate the target label using the given model and comparing its accuracy with the validation set

SupplyCopia Pvt. Ltd

May – Jul 2019

Technology Intern

Noida, India

- Wrote 7 web crawler scripts in python to extract data from public Healthcare Websites of different countries and prepare a global dataset for the company's portfolio website as well as for performing business analytics
- Extracted 50,000 rows of medical equipment data by creating python scripts using libraries like Selenium and BeautifulSoup and exported them in the form of CSV files with an average operation time of 5-10 minutes per crawler

Wipro India Pvt. Ltd

May – Jul 2018

Software Engg. Intern

Chennai, India

- Re-created Wipro's ETL Review Tool, used to validate ETL task rules, as a web-app utility using Java, JQuery, D3js
- Developed 3 sub-utilities in the app – searching format errors in given file, modifying validation rules and usage summaries
- Improved the validation accuracy from 70% (orig. code) to 99.9% and reduced the database memory storage usage by 85%

Achievements

- Won the Circle of Excellence Award 2022 in the Collaboration category at JP Morgan Chase
- Successfully completed training and examination for AWS Cloud Practitioner Essentials Certification (Sep 2022) at JPMC
- Secured an All-India Rank of 7991 in JEE Advanced 2015 (admission in IITs) amongst 2M+ candidates (99.96th percentile)