

DHAIRYA AMERIA

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EDUCATION

University of Pennsylvania, Philadelphia, USA

Aug 2025 - May 2027 (Expected)

Master of Science in Computer and Information Sciences

CGPA - 3.7/4

- **Courses:** Artificial Intelligence, Operating Systems, Ethical Algorithms
- Teaching Assistant for CIS 5110 Theory of Computation

K.J. Somaiya College of Engineering, Mumbai, India

Jun 2020 - May 2024

Bachelor of Technology in Computer Engineering

CGPA - 3.94/4

- **Courses:** Database Technology, Data Structures & Algorithms, Object Oriented Programming

TECHNICAL SKILLS

- **Languages:** Python, SQL, Java, C++, JavaScript, HTML/CSS
- **Frameworks/Libraries:** Spring Boot, Node.js, React, Express.js, Next.js, Flask, FastAPI, PyTorch, Keras
- **Databases & Tools:** MongoDB, PostgreSQL, MySQL, Redis, Firebase, Git, Docker, Jenkins, Maven, AWS
- **Technologies:** Git, Rest APIs, Microservices, CI/CD, Agile/Scrum, Linux, Tableau, Power BI
- **Certifications:** AWS Certified Cloud Practitioner, TensorFlow Developer Specialization, Mathematics for Machine Learning

WORK EXPERIENCE

Software Engineer I

Jul 2024 - Jul 2025

JPMorganChase, Mumbai, India

- Managed vendor integrations by establishing API connectivity for the official Alumni portal.
- Automated the reconciliation process and reduced manual intervention by 75%.
- Improved report scheduler dashboard by reducing data fetch latency by 40% while enhancing API-level reporting using Java.

Software Engineering Intern

Jan 2024 - Jun 2024

JPMorganChase, Mumbai, India

- Contributed to migrating internal applications to AWS Cloud Platform, improving scalability and reducing infrastructure costs by 30%

Software Development Intern

Jun 2023 - Dec 2023

Nasdaq, Bangalore, India

- Collaborated with business teams to document functional specifications, perform ETL transformations, and analyze 2 years of pipeline snapshot data to build a predictive model that identified high-risk contracts with 85% accuracy.
- Designed 3 critical dashboards using Salesforce CRM Analytics and explored 70+ use cases of SAQL and Bindings.

Technical Intern

Oct 2021 - Mar 2022

Zebpay, Mumbai, India

- Automated AWS resource tracking and tagging, eliminating 100% of idle resources and significantly reducing cloud spend.
- Created a Python bot for real-time crypto prices using FastAPI and Redis caching, enabling access to critical market data and reducing response time to user inquiries by 60% during critical trading periods.

PROJECTS & PUBLICATIONS

Federated Retrieval-Augmented Generation (RAG) system

- Developed a federated RAG system for healthcare institutions that answers cross-institution medical queries without sharing raw patient data and cutting central data transfer.

PennOS - Unix-like Operating System

- Built a Unix-like OS in C with a priority scheduler, system calls, and a thread-based process model to run programs concurrently.
- Created a FAT-style file system and shell that support POSIX-like file operations, jobs, pipelines and I/O redirection with proper signal handling.

Rialto - Personalized Banking System

- Developed a personalized banking platform with machine learning models for credit risk, churn prediction, and sales forecasting, improving recommendation accuracy by 40%.

Preserving Privacy in Next Keyword Prediction using Federated Learning

- Presented at the IEEE Second International Conference on Advances in Computational Intelligence and Communication 2023.