

# DHAIRYA AMERIA

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## Education

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

**Jun 2020 - May 2024**

*Bachelor of Technology in Computer Engineering*

*CGPA - 9.41*

**Narayana Junior College, Mumbai, India**

**Jun 2018 - May 2020**

*Higher Secondary Certificate*

*83.84%*

## Experience

**JPMorganChase, Mumbai, India**

**Jan 2024 - Present**

*Software Engineer - [3 months]*

- Spearheaded AWS migration for application, improving scalability and reducing operational costs. Managed decommissioning of legacy assets, optimizing resource utilization, reducing computational costs, and cleaning repositories.
- Led API integration with new vendor, successfully completing two-way endpoint testing and reconciliation process design, ensuring seamless vendor transition.
- Played a key role in Scrum activities and closed 70+ Jira stories, overseeing 6 independent production releases.

*Software Engineer Intern - [6 months]*

- Designed and implemented a new report and scheduler dashboard. Enhanced reporting module with API-level improvements, increasing data reporting efficiency.
- Conducted sessions on onboarding to internal LLM solutions for the department, organized regular fun friday sessions for team-building and maintained coding best practices through peer code reviews.
- Worked on infrastructure upgrades, including Aurora and Certificate updates, ensuring compliance and system security.

**Nasdaq, Bangalore, India**

**Jun 2023 - Dec 2023**

*Software Development - [5 months, Part-time]*

- Collaborated with internal stakeholders and data teams to document the requirements and perform ETL transformations to map them to functional specifications for data warehousing processes.
- Used monthly snapshots of contract risk pipeline data over 2 years to carry out data analysis and modelling. Built a predictive model that can predict potential contract risk with the current state data in Salesforce.

*Software Development Summer Intern - [2 months]*

- Designed and created interactive dashboards using Salesforce CRM Analytics that provide stakeholders with a comprehensive view of real-time CRM data trends, customer behavior, and performance metrics.
- Trained on over 70 use cases of Salesforce Analytics Query Language and Bindings.

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

**Jun 2022 - Dec 2022**

*Research Intern*

- Conducted thorough literature survey on challenges in recommendation systems, focusing on privacy preservation and cold start scenarios in the federated learning domain and utilized Pytorch and CUDA for implementation.
- Designed a graph neural network utilizing attention mechanisms to enhance the effectiveness of indirect interactions.
- Presented findings at the academic conference, contributing to the advancement of privacy-preserving machine learning in recommender systems.

**Zebpay, Mumbai, India**

**Oct 2021 - Mar 2022**

*Technical Intern - [6 months, Part-time]*

- Automated the generation of reports by tracking instances and other resources on AWS to eliminate almost 100% unnecessary usage. Auto-tagging of resources with comments to document and analyse requirements
- Created custom REST APIs using Python FastAPI, Postman and Redis caching to get real time cryptocurrency prices in different currencies. Integrated functionality with slack bot for ease of use.

## Projects

**Privacy Preserving Distributed Learning based Recommendation System**

**Dec 2023**

- Developed a recommendation system based on the federated learning architecture, solving challenges associated with data privacy and protection and highlighting practical applications in real world scenarios.
- Conducted a comprehensive literature survey to develop the client-server cluster and employed WanDB for experiment tracking and visualization, showcasing results and progress effectively.

## Savant - All in One Research Assistant

Dec 2022

- Devised a comprehensive virtual research assistant system to address the common challenges of time-consuming and tedious paper reading and research processes, offering a solution to make research more accessible.
- Leveraged a technology stack including MongoDB, React, NodeJS, Express.js and Material UI to create an efficient, powerful and collaborative platform for streamlined research for students and researchers.
- Achieved top 10 ranking out of the 160+ teams at national-level hackathon, KJSCE Hack 7, and selected for incubation by *Riidl - Research Innovation Incubation Design Labs, prominent technology incubator, Cohort 2023*.

## SafeSocial - A chrome extension

Nov 2021

- Implemented a chrome extension used to block hateful and offensive comments on social media sites like Youtube and X.
- Developed the chrome extension using manifest version 3 and NLP model using Keras and TensorFlow modules of Python.

## Rialto - Personalised Banking System with the help of predictive analysis

Apr 2021

- A personalized banking system built using NextJS, ExpressJS MongoDB, Python and Flask to help financial service providers identify the most relevant financial products for their customers.
- Create different machine learning models for credit risk analysis, churn model, demographic related sales prediction to provide “next best action” in the form of a personalised report.

## Tableau Dashboard - Clinical Data Analysis

Dec 2020

- Designed a Tableau storyboard analysis a dataset from Kaggle. Devised valuable insights from the dataset representing 10 years of diabetic clinical care at 130 US hospitals and helped depicted reasonable conclusions.

## Technical Skills

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- **Programming Languages:** Python, Java(Spring), C, C++, JavaScript, SQL
- **Web technologies:** HTML, CSS, NodeJS, React, Typescript, ExpressJS, NextJS
- **Libraries/Frameworks:** TensorFlow, Keras, Streamlit, OpenCV, Flask, Sci-Kit Learn, PyTorch
- **Databases:** MongoDB, PostgreSQL, Firebase
- **Software:** VS Code, Bitbucket, Github, Postman, Tableau

## Certifications

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- **Mathematics for Machine Learning Specialization** | *Imperial College London through Coursera*
- **Object-Oriented Data Structures in C++** | *University of Illinois Urbana-Champaign through Coursera*
- **TensorFlow Developer Specialization** | *DeepLearning.AI through Coursera*
- **Analytics for Decision Making** | *University of Minnesota through Coursera*
- **AWS Cloud Technical Essentials** | *Amazon Web Services through Coursera*

## Publications

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### Published & Presented

- **D. Ameria**, U. Kumar and S. Sankhe, "A Comprehensive Analysis of Inference Attacks in Federated Learning," 2023 IEEE Pune Section International Conference (PuneCon), Pune, India, 2023.
- U. Kumar, **D. Ameria** and P. Gupta, "MetaFRS- Federated Learning based Cold Start Recommendation System using Meta-Learning," 2023 International Conference on Evolutionary Algorithms and Soft Computing Techniques (EASCT), Bengaluru, India, 2023.
- S. Tyagi, A. Pawar, U. Kumar and **D. Ameria**, "Preserving Privacy in Next Keyword Prediction using Federated Learning," 2023 Second International Conference on Advances in Computational Intelligence and Communication (ICACIC), Puducherry, India.

### Accepted & Presented

- S. Dhumale, **D. Ameria** "Blockchain-based Personalized Federated Learning leveraging the SMPC protocol", IEEE, The 56th Annual International Carnahan Conference on Security Technology (ICCST), Pune, India, 2023.

## Extracurricular Activities

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- Secured 1st Prize at the national-level hackathon Hackerstellar, organized by CSI Student's Chapter at KJSCE, developing SpaceVest, a sustainable investment platform that promotes eco-friendly investment options and services.
- Participated in more than 10 national-level hackathons and secured under top 10 positions in more than 3 hackathons.
- Volunteered for The Schools Challenge, a program by JPMorganChase and Agastya International Foundation, mentoring underprivileged students in building a technical solution to detect paddy plant diseases.
- Demonstrated leadership in maintaining public relations at Somaiya Voices, the official student-run newspaper of the university spreading across 3 campuses.