

WORK EXPERIENCE

Analyst

July 2021 to present

Citicorp Services India Pvt Limited, Chennai, India

- Been a part of **Trade Treasury Services** and **Rates – Risk** teams.
- Handled improving test coverage of salary crediting application and helped reach **90% test coverage**.
- Developed a **JAVA API** to **perform sanity checks** to verify input flow through application in production before every release eliminating human intervention by 100% and delivered it across teams.
- Developed a **JAVA microservice** to develop a **regression tool** to compare jobs in different environments and publish the results as a report through mail. Deployed it through a **scheduler** which automatically triggers the service at defined **CRON times**. Greatly reduced manual effort by lessening number of people assigned for monitoring jobs every day.

EDUCATION

Anna University, Madras Institute of Technology

Chennai, India

Bachelor of Engineering, Computer Science

Aug 2017 to July 2021

Coursework – Algebra, Calculus, Probability, Machine Learning, Artificial Intelligence, Databases, Python, Java

CGPA: 9.03 – Top 10% amongst 120 students - Member of Computer Society

Jawahar Vidyalaya Higher Secondary School

Chennai, India

98.5% - School Topper - State Topper in French - House Captain – Event Organizer

June 2016 to May 2017

Jawahar Vidyalaya Senior Secondary School (CBSE)

Chennai, India

CGPA: 10 - School Topper

June 2014 to June 2015

PUBLICATIONS

Jayasimha, A., Jayashanker, P., **Charanya, S.K.**, Krithika, K. (2022). A Study on the Repercussions of the COVID-19 Pandemic in the Mental Health of the Common Public: Machine Learning Approach. Artificial Intelligence and Technologies. Lecture Notes in Electrical Engineering, Springer - https://doi.org/10.1007/978-981-16-6448-9_23

PROJECTS

(More at <https://github.io/charanya78>)

Two-tiered approach to detect melanoma

July 2020 to Dec 2020

- Proposed variance score to determine if the sample is complex, fused CNN and handcrafted features in tier 2 classification achieving accuracy of 93% and specificity of 96% on ISIC dataset.
- Currently undergoing 2nd review in journal “Computers in Medicine and Biology”

Multimodal Video-Audio classification framework for fall detection

Jan 2021 to June 2021

- Built a video classification model using Gated Recurrent Convolutional Neural Network (GRCNN) and a two stream CNN (TS CNN) for the audio modality.
- Achieved accuracy of 88% on Imvia dataset and 92% on self-built dataset.
- Currently undergoing 1st review in journal “Computers Methods and Programs in Biomedicine”.

Citi Tradex

July 2021 to September 2021

- Built an investment portfolio application with front end (Angular) and back end (MySQL) and deployed in OpenShift.
- Added features like getting profit loss percentage of stock, provide trade suggestions, in app wallet and getting live price of stock and created analytics dashboard to visualize trade history.

Fantasyster

June 2022 to September 2022

- Developed a fantasy helper application – to provide stats of players and teams to help build the right team on Fantasy.
- Scrapped data from cricsheet and calculated essential stats for batters and bowlers.
- Built front end using StreamLit and deployed using Google sheets and StreamLit.

Analysis of mental health of denizens during COVID-19 lockdown

March 2020 to August 2020

- Collected data from survey including questions based on GERD7 scale and clustered the participants based on age.
- Identified factors affecting anxiety in every cluster using EDA and deduced stressors affecting each age group.
- Cross checked our results with existing feature selection techniques and found 90% of features matched.

VOLUNTEER EXPERIENCE

National Service Scheme, Volunteer

2017 – 2018

Girl Guides, Volunteer

2010 - 2013

HONORS, AWARDS AND EXTRA CURRICULARS

Gratitude Award, Citi

2022

DBDwellers - 2nd runner up in inter college symposium Prayatna

2018

Duet Dance – Dance competition 1st place

2017

Subject Proficiency in French

2017

General Proficiency

2017

Subject Proficiency in Computer Science

2016

Oratorical competition – 3rd place

2016

Group singing – 3rd place

2016

National Mathematics Olympiad Contest Merit Certificate

2015

Jawahar Vidyalaya Endowment award for Best Student

2013

Best Participant, Radio Jockey Show

2013

SKILLS

Programming Languages: Java, C, C++ Python, HTML/CSS, Angular, JavaScript

Databases: Oracle SQL, Microsoft SQL Server

Data Science Tools: Apache Spark, Excel, Jupyter, Tableau

Machine Learning Libraries: TensorFlow, Keras, NumPy, PyTorch, Scikit-learn, Matplotlib, Pandas

Frameworks: SpringBoot, Django, StreamLit

IDE: Eclipse, Visual Studio, PyCharm, IntelliJ IDEA

DevOp Tools: Teamcity, UDeploy, SonarQube, ECS, JIRA, Git, Jenkins

Area of interest: Machine Learning, Deep Learning, Medical Image processing, Clinical Databases