RITWIK VAIDYA

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EDUCATION

North Carolina State University, Raleigh, NC   **08/2022 – 05/2024**
Master of Computer Science   **(GPA 3.83/4)**
Courses: Database Management Concepts & Systems, Design & Analysis of Algorithms, Object Oriented Design & Development, Automated Learning and Data Analysis, Software Engineering, Neural Networks & Deep Learning.

Thadomal Shahani Engineering College, Mumbai University, India   **08/2018 – 07/2022**
Bachelor of Engineering in Computer Engineering with *Distinction*   **(CGPA 9.44/10)**
Courses: Data Structures, Analysis of Algorithms, Object Oriented Programming, Database Management Systems.

PROFESSIONAL EXPERIENCE

Amazon, Software Dev Engineer Intern *(Seattle, WA)*   **05/2023 – 08/2023**
- Developed a leave audit history difference viewer with **React**, enabling efficient comparison of audit versions, leading to faster request processing times, reduced time-to-decision & **60%** decrease in average time per case for case managers, increasing case manager efficiency and promoting potential headcount savings.
- Simplified complex JSON Logic leave eligibility rules by storing them in a tree data structure in **Java**, incorporating evaluation outcomes for each rule condition. Modified existing API to include this model & built a recursive component in **React** to render it, leading to improved employee experience for approximately **500K+** employees.

North Carolina State University, Research Assistant *(Raleigh, NC)*   **09/2022 – 11/2022**
- Researched software, libraries, and packages to implement emotion detection using **MobileNetV2**, **DeepFace**, and **FER**, as well as attention analysis using **OpenFace** and **Dlib** library.
- Automated analysis of these algorithms on system performance by logging metrics like CPU utilization, power consumption, memory & storage into CSV files using **Python** scripts. Generated graphical reports in **Excel** to facilitate visualization and interpretation.

Marketing Match, Full Stack Developer Intern *(Remote)*   **06/2021 – 09/2021**
- Incorporated agile methodology to build the front end, integrate a content management system and a payment gateway and deploy the website on **Firebase** using **Next.js**, **Node.js**, and **Contentful CMS** for a travel agency.
- Participated in daily meetings with other stakeholders twice a day and provided reports based on the project's progress. Built the company website and designed multiple landing pages for the clients.

JD Web Services Pvt. Ltd., Web Development Intern *(Remote)*   **03/2021 – 05/2021**
- Collaborated in a 2-person team to create a **React.js** and **Node.js** appointment booking app. Led development of merchant onboarding, encompassing user registration, authentication and **PostgreSQL** database management.
- Implemented appointment booking functionality where customers could book services of the businesses listed on the portal, with the businesses having the flexibility to remain closed on certain days.

ACADEMIC PROJECTS

Web Application | The Social Helper | HTML, CSS, Express.js, Node.js, MongoDB
- Worked in a team of 3 in developing a web application for an NGO named "Aapka Sahara Foundation" where the elderly people could talk and meet with volunteers of the organization in their vicinity.
- Integrated a chat feature employing Web Sockets for the users to connect and schedule an online or offline meetup.

Web Application | Online Bookstore | Ruby on Rails, SQLite
- Led a team of 3 in building a full-stack application for inventory management of an online bookstore with an admin portal having the privileges to create/view/edit/destroy users/books/book reviews from the bookstore.
- Granted users the functionality to buy books, review purchased books, edit their profile and view transaction history.

Data Science | Data Science Salary Prediction Application | Python, Flask, Selenium, Sci-Kit Learn
- Programmed an application for job seekers to get an estimate of the salaries of various data science jobs.
- Created a dataset by web scrapping the data science job postings from Glassdoor website and trained the Random Forest model on the same dataset with a Mean Absolute Error (MAE) of **11.22**. Modeled a client facing API with Flask that took input features like location, job description, company rating, etc. for the regression model to give an estimate of the salary.

TECHNICAL SKILLS

- Programming languages: C/C++, Java
- Web Technologies: HTML, CSS, Bootstrap, JavaScript, React.js, Express.js, Node.js, Ruby on Rails, Firebase | Others: Git
- Databases: MongoDB, MySQL, PostgreSQL

CO CURRICULAR & EXTRA CURRICULAR ACTIVITIES

- Secured **1st** position in National Level Street Play Competition at IIT Gandhinagar and IIM Ahmedabad.
- Selected in **Top 12** at TSEC Hacks Hackathon out of **200+** registered teams.