SANDRA ELIZABETH RAJOO

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EDUCATION

University of Southern California, Viterbi School of Engineering – GPA: 3.8/4 **Aug 2021 - May 2023**
Master of Science in Healthcare Data Science (STEM)
- **Coursework:** Data Management, Machine Learning for Data Science, Data Mining, Data Visualization

Cochin University of Science and Technology – GPA: 8.8/10 **Aug 2014 - Apr 2018**
Bachelor of Technology in Computer Science and Engineering
- **Coursework:** Data Structures and Algorithms, Object-Oriented Design, Database Management Systems

SKILLS

- **Programming:** Python, JavaScript, TypeScript, SQL, HTML/CSS
- **Data Storage:** Relational (MySQL), NoSQL (MongoDB, Firebase), AWS (S3, DynamoDB)
- **Technical:** Big Data (Hadoop, Map Reduce, Spark (PySpark)), Machine Learning (Regression, Classification, Clustering, Decision Trees), ETL, Data Visualization (D3.js, ggplot2, matplotlib, Seaborn)
- **Frameworks/Tools:** Vue.js, React, Scikit-learn, Flask, Pandas, Numpy, NLTK, R, Jupyter Lab, VS Code, Github

WORK EXPERIENCE

CIED– Kerala, India **Jun 2023 – Jul 2023**
Software Developer Freelance | TypeScript, Google Sheets API
- Automated weekly progress reporting by developing a custom Slack App that streamlined slack conversations.
- Reduced manual effort by **85%** and improved data analytics through streamlined data storage and retrieval.

Life Singularity– New Jersey, USA **Jun 2022 – Aug 2022**
Data Science Intern | Python, Pandas, Matplotlib, Seaborn, Babylon.JS, AWS (Sumerian, Lex, Lamnda, S3)
- Performed data collection and analysis to identify potential predictors of sexual harassment and created heat maps.
- Developed a VR-based user interface to enable users to input data and generate predictions.

Cognizant – Chennai, India **Oct 2018 – Aug 2021**
Front-End Developer | JavaScript, Tridion CMS
- Led a team of **7** to develop **50** dynamic websites per deliverable cycle using Agile Methodologies.
- Created CSS specification files and interactive web applications; conducted user acceptance sessions with clients.
- Participated in technical planning to articulate technical challenges and solutions with architects and clients.

PROJECTS

Safety and Navigation Recommendation | *Python, XGB, React, D3.JS, AWS (Lex, Lambda), Firebase, Keras* **2023**
- Predicted crime rates (RMSE:**0.3**) and used object-detection algorithm (**84**% acc) to identify factors for safety score.
- Integrated Mapbox API to provide multiple routes from source to destination, accompanied by safety information.
- Developed a chatbot for users to provide safety feedback, improving the application's accuracy and user experience.

React Memory Game | *React, Typescript* **2022**
- Employed React components and state management to create a dynamic and interactive gaming experience

Yelp Recommendation System | *Python, Spark RDD, Numpy, XGB* **2022**
- Created a **data pipeline** that extracted review, user, and business data, transformed the data using Spark RDD, and loaded the processed data into PySpark for model training.
- Trained a hybrid collaborative filtering recommendation model using item-based collaborative filtering and gradient boosting model using XGBoost with an RMSE of **0.97.**

Named Entity Recognition | *Python, Numpy, NLTK* **2021**
- Achieved **97.85%** accuracy and an F1 Score of **89** on the dev-set for NER by training a bi-LSTM model using the GloVe embeddings of words from the WSJ Corpus.

LEADERSHIP

Resident Assistant– Residential Education, University of Southern California **Aug 2022 – May 2023**
- Served as a mentor for **43** graduate students from diverse backgrounds and organized educational events.
- Automated the Emergency Response scheduling by engineering a custom scheduling program using Python.

Student Ambassador Supervisor– Annual Giving, University of Southern California **Jul 2022 – May 2023**
- Managed **40** students as part of USC's fundraising and alumni relations efforts.
- Raised **$12000** for various USC scholarships and non-profit initiatives.