SARANG PATIL *(he/him)*

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EDUCATION:

University of Maryland Baltimore County**,** Baltimore, MD **Jan 2021 - Dec 2022**
M.P.S. in Data Science, *GPA – 3.97/4.0*

Pune University**,** Pune, India **Jun 2016 - May 2020**
Bachelor of Computer Engineering, *GPA – 3.7/4.0*

SKILLS:

- Python, Java, C, C++
- Machine Learning and Deep Learning Algorithms
- Data Science and Natural Language Processing Libraries
- MySQL, MongoDB
- Spark
- Hadoop
- Tableau

EXPERIENCE:

Graduate Research Assistant, *University of Maryland Baltimore County*, Baltimore, MD **Dec 2021 - Present**

- Facilitated semantic localization of the user at home solely with the help of non-intrusive sensors
- Generated an Indoor Localization system that decreases the hardware costs by 50-60% approximately using non-intrusive sensors rather than the usual smart-home sensors
- Analyzed the energy/water/gas consumption data to predict the user's location at home

Graduate Research Assistant, *University of Maryland Baltimore County*, Baltimore, MD **Jan 2022 – May 2022**

- Develop a non-intrusive smart home using Deep Learning
- Resolved issues in data having an imbalance of 80-20% by considering parameters like AUC and techniques like sampling
- Improve the results by experimenting with different parameters in the algorithms

Machine Learning Project Intern, *CoReCo Technologies*, Pune, India **Aug 2019 - Jun 2020**

- Initiated a project implementing the Naïve Bayes model for detecting inappropriate tweets (Twitter API) having a prediction accuracy of 76% and precision of 89%
- Demonstrated the impact of different algorithms on data in more business terms and less technical jargon by mediating between the project team and management team
- Illustrated analytical data and graphs of sentiments on Twitter about a specific word or in general

Project Intern, *Aalborg University*, Copenhagen, Denmark **Jan 2018 - Feb 2018**

- Managed a project team at Aalborg University regarding the Steam Game Distribution Platform
- Spearheaded Technical Analysis and Business Analysis of the project and designed innovation system architecture to satisfy the requirements of 47% of steam video game customers

PROJECTS:

Disease Diagnosing Chatbot and Hospital Recommender System **Jun 2022 – Aug 2022**

- Diagnoses potential patients based on their symptoms with an accuracy of 75.89%.
- Expanded the project by introducing a collaborative recommendation system that recommends the nearest and best suitable hospital for the patient with certain medical conditions
- Designed a user-friendly chatbot interface using the Tkinter library

Steam Video Game Recommendation Engine **Jan 2022 – May 2022**

- Developed a valuable resource for the game developers to better tailor game content to increase gamer engagement
- Recommending video games to customers based on a content-based recommendation system
- Leveraged soft cosine similarity technique trained over corpus to give more appropriate results to customers

Stock Market Prediction using the correlation between Twitter and Stock values **Jun 2021 - Dec 2021**

- Collaborated with a team of 4 to predict future stock values of different companies based on Twitter data and previous stock market patterns
- Introduced company-specific stock values with Twitter data based on a date along with and without time lag inferring a confidence level of 95% in the correlation among Twitter data and stock market data

Weather Forecasting and Weather Data Analysis using ML Algorithms **Feb 2020 - Apr 2020**

- Teamed with 3 students to design a project that predicts weather parameters such as temperature using historical data of temperature, humidity, and precipitation
- Analyzed Weather Data incorporating Time-series supervised learning which implemented LSTM and RFR with the mean absolute error being as little as 3.08 ℉ and 3.7 ℉ respectively

PUBLICATIONS:

- **"An Effective Analysis on Anti Troll System using Artificial Intelligence"**, International Research Journal of Engineering and Technology (IRJET), Volume: 09, Issue: 12, Dec 2019
  https://www.irjet.net/archives/V6/i12/IRJET-V6I12103.pdf

CERTIFICATIONS:

- **"Certified AWS Cloud Practitioner"**, *Amazon Web Services* **August 2022**
- **"Big Data Modelling and Management Systems"**, *UC San Diego* **May 2020**
- **"AWS Fundamentals: Going Cloud Native"**, *Amazon Web Services* **May 2020**
- **"Machine Learning"**, *Stanford Online* **March 2020**