THARANGINI SANKARNARAYANAN

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*Motivated graduate student **majoring in Data Science with 2+ years of experience as a decision scientist,** bringing **statistical and predictive analytics expertise in mixed reality, healthcare, product management and public policy**. I am passionate about **using data to drive strategy to solve complex business challenges and problems**. Relevant skills include **machine learning, problem-solving, programming, and creative thinking**.*

EDUCATION

Master of Science in Data Science, New York University, *U.S.* **| Center for Data Science**   **Exp Graduation: May 2023**
- Coursework: **Big Data, Machine Learning, Computational Cognitive Modeling, Probability & Statistics GPA: 3.78/4.0**

Bachelor's Thesis in Deep Learning, Universitat Politècnica de Catalunya, Spain **| School of Informatics**   **February 2019 - June 2019**
- **Title: "Realistic Face Rendering for 3D Mixed Reality Experience"**, Advisor: Dr. Nuria Castell Ariño, **GPA: 9.5/10.0**

Bachelor of Technology in Computer Science & Engineering, SASTRA University, India **| School of Computing**   **June 2015 – June 2019**
- **Coursework: Discrete Mathematics, Data Mining,Natural Language Processing, Machine Learning. Awards: Dean's List.GPA: 8.19/10.0**

EXPERIENCE

Research Assistant | New York University, *New York, NY, U.S.*   **May 2022 – Present**
- Building is a **tool to link qualified ex-offenders with firms in Illinois that are looking for skilled workers based on their education, vocational training, certifications, and job experience**.
- Creating an indicator **tool to investigate the distribution of the prison population and identify any bias**.

Teaching Assistant | New York University, *New York, NY, U.S.*   **January 2022 – May 2022**
- **Grader** for *Introduction to **Machine Learning** for a class of 180 undergrads*.
- Responsible for grading homework, papers, examinations, and providing input into the development of assignments.
- Course topics include Supervised and Unsupervised learning, dimensionality reduction, time-series analysis, and neural networks.

Trainee Decision Scientist | Mu Sigma Decision Sciences, *Bangalore, India*   **October 2019 - March 2020**
- **Formulated EDA on active users' trends using Python to extract practical insights**.
- **Utilized pattern matching, clustering, string matching, and cosine similarity** to generate redundancy score and **estimated functional redundancy** and independence present in the product of Microsoft Teams.
- Communicated and presented to extract value and actionable insights about funnel analysis and feature usage of products to multiple stakeholders across cross-functional teams of the client, product owners, fellow analysts, and marketers to introduce updates.

Associate Research Intern | ZoomRx Healthcare Solutions, *Chennai, India*   **May 2018 – July 2018**
- **Retrieved data of clinical trials** from title and description of the trials **by web scraping and part-of-speech tagging to create a database**.
- Processed clinical trial and drug usage data that has been to **match acronyms (short-form) with their expansion (long-form)**.
- **Built AI bot to automatically answer questions raised by customers** using Python about medical treatments, ETL to fetch data based on intent. Reduced response time by 40%.

TECHNICAL PROFICIENCIES

- **Programming Languages:** *Advanced:* Python, SQL; *Intermediate:* Java; *Basic:* C, C++
- **Tools:** PyTorch, Scikit-learn, NumPy, Matplotlib, Git, Spark, Hive

PROJECTS

Risk Prediction Models for Diabetes Using Diabetes Health Indicators   **October 2021 – December 2021**
- **Processed a health-related telephone survey** that is collected annually **by the Centers for Disease Control and Prevention**. **Developed hypotheses** based on the parameters involved and **perform statistical modeling**.
- Conducted a literature survey to build a network to **assess risk factors that are most predictive of diabetes risk** and make accurate predictions of whether an individual has diabetes.

Realistic Face Rendering for 3D Mixed Reality Experience   **February 2019 - June 2019**
- Conceptualized a deep learning pipeline for time-series analysis of video communication data to perform an in-depth research project.
- **Devised a bounding box to detect the Virtual Reality (VR) headsets** in the video captures and **creates a realistic model of the user's face and use it to replace the part covered by the headset, enabling mixed reality experience**. The accuracy of the prototype was 79%.

Speaker Identification of Whispered Speech using neural networks   **February 2018 - May 2018**
- Created a novel dataset of whispered audios of 30 people. **Compared and contrasted classification techniques** (SVM, Ensemble Models, CNN) on the dataset. Developed a system to **utilize extracted features to identify the speaker** and achieved an accuracy of 92%.

Comparing Typicality Ratings between Human, Convolutional Network Representations and Vision Transformers for Images
February 2022 - May 2022
- Created a novel dataset of whispered audios of 30 people. **Compared and contrasted classification techniques** (SVM, Ensemble Models, CNN) on the dataset. Developed a system to **utilize extracted features to identify the speaker** and achieved an accuracy of 92%.

CERTIFICATIONS

- **Algorithms Specialization** by University of California, San Diego & Higher School of Economics — **March 2017 - August 2017**
- **Machine Learning Specialization** by University of Washington — **October 2016 – July 2017**
- **Introduction to Computer Science and Programming using Python** by MIT Sloan — **January 2016 – April 2016**

LEADERSHIP/PROFESSIONAL AFFILIATIONS

- *Graduate Student Community Building Group Executive Board Member,* **New York University** — **September 2021 - Present**
- *Women in Data Science Executive Board Member and Events Director,* **New York University** — **September 2021 - Present**
- *Judge Advisor*, **Technovation Girls, Technovation** — **July 2019 - Present**
- *Member, Collegiate Community*, **Society of Women Engineers (SWE)** — **June 2016 – Present**