Tharangini Sankarnarayanan

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EDUCATION

- **New York University**   New York, NY
  Master of Science in Data Science; GPA: 3.78   *Aug. 2021 - Exp. Graduation May 2023*
- **SASTRA University**   Thanjavur, India
  Bachelor of Technology in Computer Science and Engineering; GPA: 8.19/10.0   *July. 2015 - July. 2019*
  - **Bachelor's Thesis in Deep Learning** Title: Realistic Face Rendering for 3D Mixed Reality Experience, GPA: 9.5/10.0, Universitat Politècnica de Catalunya, Spain

SKILLS

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

EXPERIENCE

- **New York University**   New York, NY
  Teaching Assistant, Introduction to Machine Learning   *Jan 2022 - Present*
  - **Course Formulation:** Formulated input into the development of assignments and course materials. Instructing lab sessions for the class in Fall 2022
- **Marron Institute of Urban Management**   New York, NY
  Research Fellow   *May 2022 - Aug 2022*
  - **Product Design:** Designed a tool to connect employers committed to hiring people with criminal records with qualified applicants who are releasing from the Illinois Department of Corrections, collaborating with a group of 10 end users to create features across the software using Python, Flask, and CSS
  - **Presented the tool** to incarcerators at Kewanee Life Skills Re-entry Center and the Director of Illinois Department of Corrections. Tool will be launched in August 2023
- **Mu Sigma Decision Sciences**   Bangalore, India
  Trainee Decision Scientist   *Oct 2019 - Mar 2020*
  - Formulated **Exploratory Data Analysis** on active users' trends of Microsoft Teams based on data of prior 6 months using Python to extract practical insights
  - **Communicated and presented** actionable insights about product feature analysis to stakeholders across cross-functional teams of the client, product owners and marketers to introduce updates.
- **ZoomRx Healthcare Solutions**   Chennai, India
  Associate Research Intern   *May 2018 - Jul 2018*
  - **Data Collection** Retrieved data of 1 million clinical trials from title and description of the trials by web scraping and part-of-speech tagging to create a SQL database to build a bot
  - Matched 1500 acronyms (short-form) with their expansion (long-form) in clinical trials and drug usage data
  - **Built recommendations** for AI bot to answer questions raised by customers using Python about medical treatments and fetch data based on intent. Reduced response time by 40%

PROJECTS

- **Training AI to recognize distances, objects, and requests of interest to the blind community** Research an object detection model to recognize items relevant to persons with blindness in their day-to-day living. Training involves two different families of object detection models - YOLO and DeepLab. Final output uses existing baseline methods for Image Captioning for conveying the object through audio.
- **Risk Prediction Models for Diabetes Using Diabetes Health Indicators** Developed 4 hypotheses based on the parameters involved and perform statistical modelling. Conducted a literature survey to build a network to assess risk factors to predict the risk of diabetes and make accurate predictions of whether an individual has diabetes
- **Realistic Face Rendering for 3D Mixed Reality Experience** 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 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%.

ACTIVITIES

- **Graduate Student Community Building Group Executive Board Member, New York University**
- **Women in Data Science Executive Board Member and Events Director, New York University**
- **Judge Advisor, Technovation Girls, Technovation**