

Manasa Krishnan

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EDUCATION

Northeastern University, Khoury College of Computer Sciences

Boston, MA

Master of Science in Data Science

Expected May 2023

- Cumulative GPA: 3.8/4.0
- Relevant Coursework: Data Management and Processing, Supervised Machine Learning, Deep Learning, Algorithms

SASTRA University, School of Computing

Thanjavur, India

Bachelor of Technology in Computer Science and Engineering

May 2021

- Cumulative GPA: 8.7/10.0
- Related Courses: Data Structures, Discrete Mathematics, Data Mining, Machine Learning

PROFESSIONAL EXPERIENCE

Northeastern University

Boston, MA

Research Assistant

December 2021 – January 2022

- Use Big Data technologies like Azure and AWS to pre-process and clean large datasets and convert them to sas7dat using SAS Studio
- Employed Certik to read and verify the different kinds of issues and their metrics

Workamuse

Chennai, India

Intern, Technical Content Creator

March 2021 – August 2021

- Led a team to collaborate with reputed educational institutions to create error-free video and e-book contents

Deloitte

Chennai, India

Intern, Customer Acquisition

Jun 2020 – Jul 2020

- Analysed the business and technical requirements of Deloitte's clients before designing a cloud-based solution
- Built cost-effective ways to examine labour requirements, timeframe to be considered and suitable cloud platform for the given problem
- Pitched the findings highlighting the potential problems, ideas for resolving and eventual successes

ACADEMIC PROJECTS

DIABETIC RETINOPATHY DETECTION – SEVERITY STAGE CLASSIFICATION

Boston, MA

Northeastern University

Oct 2021 – Dec 2021

- Developed deep learning approach to detect diabetic retinopathy from human fundus images using CNN, transfer learning with ResNet34 and multi-task learning(ResNet50 – regression, classification and ordinal regression)
- Performed data augmentation, dimensionality reduction using T-SNE and achieved an accuracy of 80% using 3-layer neural network

CRIMINAL DATA ANALYSIS – CRIME PREDICTION AND CLASSIFICATION

Thanjavur, India

SASTRA University

Feb 2021 – June 2021

- Displayed the geolocation with Marker Cluster algorithm and performed EDA for type and number of crimes
- Employed prediction models like Neural Network and LSTM to predict the number of crimes on a particular day
- Classified the type of crime using KNN, GaussianNB, Artificial Neural Networks and Random Forest algorithms
- Achieved a minimal MAE of 3.28, 3.39 and 3.27 MAE for 3 cities(San Francisco, Philadelphia and Chicago)

ITEMSET MINING – ARM OF SUPERMARKET TRANSACTIONS

Thanjavur, India

SASTRA University

Sep 2020 – Dec 2020

- Used Paillier and BGN cryptosystems to secure customer data on Microsoft Azure using keys and infrastructure with medium security and cost-effectiveness to predict consecutive products that customers might buy
- Used blocking algorithm to increase efficiency and PowerBI to visualise the results of ARM

TECHNICAL SKILLS

Programming Languages: Python, SQL/XML, JAVA, R, C++, XQuery

Software Development Tools: Azure, IBM Cloud Pak, Databricks, PowerBI, MySQL, MongoDB

Machine Learning and Data Science: Scikit-learn, Matplotlib, Pandas, NumPy, Data Science Pipeline, A/B testing, Sklearn, PyTorch, Spark, Sklearn, Seaborn, TensorFlow, Keras

Certifications and Trainings: Data Scientist(IBM), Robotics(IIT-M), Career Edge - Soft Skills(TCS), Machine and Deep Learning Training with Python and R(Udemy)

LEADERSHIP AND RESPONSIBILITIES

Leadership: Captain of Women's Table Tennis and Head of Marketing, E-Cell(SASTRA University)

Responsibilities: Headed a non-profit organization to conduct free educational and blood camps for the under-privileged