Smriti Murali

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Education

University of Massachusetts | Amherst, MA Exp. Graduation Dec 2021
MS in Computer Science GPA: 3.85/4
Coursework : Machine Learning, Algorithms for Data Science, Probabilistic Graphical Models

National Institute of Technology | Surathkal, Karnataka July 2013 | May 2017
B. Tech in Computer Engineering GPA: 8.18/10
Coursework : Software Engineering,Data Structure, Design & Analysis of Algorithms, Database, Computer Networks, Operating Systems, Computer Graphics, Digital Image Processing, Probability Theory & Applications

Certifications Coursera
IBM Data Science Professional, Deep Learning Specialization, Introduction to Data Science in Python, Applied Machine Learning in Python, Applied Text Mining in Python, Applied Social Network Analysis in Python

Professional Experience

Center for Data Science | UMass, Amherst Data Science for Common Good Fellow May 2020 | Aug 2020
- Worked on identifying how long a patient will take to get progressive Multiple Myloma (cancer) using deep learning and survival analysis.

Oracle Applications Engineer - Fusion Order Management July 2017 | Dec 2019
- Developed modules to generate data for Business Intelligence reports, autobook and autovalidate orders which will reduce human effort required in the order fulfillment process using Groovy and PL/SQL.
- Built integration with different modules like shipping.

Goldman Sachs Summer Analyst May 2016 | June 2016
- Developed a portal to view invoices and developed the work-flow for vendor registration using Java and SQL.
- This helped automate almost 75% of vendor billing procedure.

Dataphi Labs Intern Mar 2015 | April 2015
- Analysed data collected from the GOQii fitness band and built a model using scikit-learn to identify the frequency and patterns of interaction by the trainers which helped the wearer of the band perform best.

Research Experience

Indian Institute of Science Intern May 2015 | July 2015
- Analyzed the impact of different queuing algorithms on packet drops and throughput in a network using C++.

National Institute of Technology, Karnataka Major Project July 2016 | May 2017
- Designed a Hybrid recommender system to recommend travel destinations, based on user demography, using unstructured data from different sources.

Technical Skills

Programming languages, libraries and tools:	Python, Pandas, PyTorch Scikit-learn, GeoPandas, OpenCV, Matplotlib, Seaborn SQL, Docker, Kubernetese, Jupyter Notebook, GitHub, AWS, Jira

Relevant Projects

Detecting touching bacteria from Ziehl-Neelsen stained sputum smear images
- Counted the number of bacteria in the smear image by extracting the skeletons of the bacterium and implementing a hierarchy-tree based segmentation algorithm to distinguish single bacteria from a cluster using OpenCV.

A Crowdsourced Platform for Disaster Relief
- Built a platform to aggregate, disseminate and analyse data from different sources so that critical information needed for rescue and relief operations is available to all stakeholders at real time on an integrated portal.

Implemented Proportional Integral Controller Enhanced (PIE) Algorithm in ns-3
- Implemented Proportional Integral controller Enhanced (PIE) an Active Queue Management (AQM) algorithm designed to address the problem of bufferbloat in ns-3 using C++.

Publications

- Murali, Smriti, and Mohit P.Tahiliani "Implementation and Evaluation of Proportional Integral Controller Enhanced (PIE) Algorithm in ns-3." Proceedings of the Workshop on ns-3. ACM, 2016.
- Murali, Smriti, V. Krishnapriya, and Aadhiya Thomas. "Crowdsourcing for disaster relief: A multi-platform model." In Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER), IEEE, 2016.