SINDOORA RAVIKUMAR MURTHY

Full Stack developer | Data Scientist

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CAREER OBJECTIVE

My goal is to become a successful Data scientist by arriving at methodologies to help in understanding a given domain by mathematically modelling and implementing the same through software solutions using Machine learning techniques. I am also a Full Stack Developer, skilled in Object oriented programming (Python, Java, C/C++) as well as Database management & Web development.

EDUCATION

- ***Master's Degree in Computer Science - University of Texas, Arlington*** **[Spring 2021 to Fall 2022]** **3.75/4.0 GPA**
  [Courses : *Design & Analysis of Algorithms*, *Data Analysis and Modelling techniques*, *Computer Graphics, Database Systems, Advanced Database Systems-Cloud computing, Machine learning, Data Mining, Software Testing, Artificial Intelligence, Neural Networks, Web Data Management*]
- ***Bachelor's Degree in Computer Science & Engineering - B.N.M Institute of Technology, Bangalore, India*** **[Aug 2014 - June 2018]** **8.0/10 GPA**

SKILLS

Programming Languages	**:** Python (TensorFlow, OpenAI, Weka, scikit-learn), C, C++, PowerShell, Java, C# , JavaScript, OpenGL, Objective-C
Web technologies	**:** HTML5, CSS, Bootstrap, PHP, Flask, React-Native, NodeJs
Cloud Technologies	**:** AWS, Azure
Database Technologies	**:** SQL, MySQL, Firebase, MongoDB
Softwares	**:** Android studio, Visual studio, IIS, Jenkins, MATLAB, Xcode
Version controllers	**:** GIT, TFS
Operating Systems	**:** Windows, Linux, iOS, Android, macOS

WORK EXPERIENCE

Graduate Teaching Assistant, University of Texas at Arlington - CSE department **Jan 2022 - present**
- Teaching assistant for Software Engineering II - Management, Maintenance & Quality assurance (CSE 5325) at UTA.
- Duties: Conducting class, grading exams, having office hours to guide students on their projects, arranging for Guest lectures for students by external faculties.

Graduate Teaching Assistant, University of Texas at Arlington - CSE department **Aug 2021 - Dec 2021**
- Teaching assistant for Algorithms and Data structures course (CSE 3318) at UTA.
- Duties: Conducting lab sessions, conducting exam reviews sessions, grading & proctoring exams, guiding students on their final projects.

Student Technology Assistant, University of Texas at Arlington - Office of Information Technology **May 2021 - Aug 2021**
- Duties: Re-imaging devices, debugging any software/hardware related issues with all devices under UTA domain. Worked as a **Technical consultant** with UTA staff to build a core component of the solution in Python to interpret Service Now data and pull it in a desired format which is imported into the UTA database.

Application Development Associate, Accenture Services Pvt. Ltd., India **Aug 2018 - May 2020**
- Project: Presto Device Software, Fare Management System . Client: Metrolinx, Canada. Developed an automation tool to deploy application components on various internal servers. Integrated complete CI/CD pipeline for deployment using Jenkins. Reduced manual work from hours to seconds.
- Awards: Awarded '*Emerging Star*' during the first year of tenure in theproject for said achievements. (Click to view certificate)

Research Intern, The Old Dominion University, Norfolk, VA **Jul 2017 - Aug 2017**
- Studied Alzheimer's and Dementia patients to help reduce patient on patient violence. Developed an Android app to notify the nurse for a changing sensor value from the android gear, worn by the patient. Awarded '*Most Outstanding Intern* 'for demonstrating the best working prototype of the solution and also for exceptional technical, presentation & communication skills. (Click to view certificate)

TECHNICAL PROJECTS

Stock Market Analysis & Prediction using Machine Learning, ***B.N.M Institute of Technology, Bangalore, India***
- Designed an ML model that predicts changing stock price of a company based on its historical prices over a period of five years, given the respective news articles post-closing time of the previous day and other globalisation factors. Employed Machine learning and Deep learning algorithms such as SVM, MLP to understand and predict the stock prices. Achieved ~ 80% accuracy.

K Means Clustering to classify various fauna species, ***University of Texas at Arlington***
- Designed an ML model that clusters the data by creating 3 centroids and finding the datapoints closest to these centroids, thus, classifying the data into 3 species.

CIFAR-10 image classifier using Convolutional Neural networks, ***University of Texas at Arlington***
- Built a Neural network model with multiple convolutional layers (CNN), cross-entropy function and SGC optimiser. Improved the performance by increasing number of layers and epochs. Accuracy ~ 65%

Naïve Bayesian Classifier used for sentiment analysis of Yelp reviews, ***University of Texas at Arlington***
- Built a Naive Bayesian model that processes large amounts of yelp reviews data and classifies them into positive and negative reviews based on the words used and their prior/posterior probabilities. Applied Laplace smoothing and studies the efficiency variations.

Aggression Detection in Alzheimer's & Dementia patients, ***The Old Dominion University, Norfolk, VA***
- Employed Android Studio (Java) application along with real-time data manager - Firebase to pick up gyroscopic values from the android gear worn by the patient and notify the nearest nurse if there is an anomaly in the recorded values with respect to their thresholds. Achieved ~ 90% accuracy.

Data analysis & data retrieval performance optimisation using Redis, ***University of Texas at Arlington***
- A Flask web-application that analyses any data set, imports into SQL database on Azure cloud or MongoDB and with a web interface allows users to query information from the data. Also measured performance & improved the application's performance for data retrieval using Redis.

Multiplayer game using multiple AWS Cloud instances, ***University of Texas at Arlington***
- Implemented a multi-user web-application game using Flask. The application has a separate AWS - EC2 cloud instance for each player.

Search engine using Azure Cloud services, ***University of Texas at Arlington***
- A Flask web-application that searches based on words or word combinations to find relevant documents that are on Azure cloud. The search result identifies a document by name and where in that document that is found (such as line or offset). Achieved efficient search time complexity.

Presto Device software, Fare management system - Metrolinx, ***Accenture Services Pvt. Ltd., India***
- Roles: 1) **Technical Architect** - development & deployment of the software updates on the internal servers & IIS. 2) **Release Manager & DevOps Engineer** – implementing and handling the complete CI-CD integration of creating builds and the deployment of these builds on the respective production devices using Jenkins.

CLUBS AND ORGANISATIONS

- **Outreach Lead** - Google Developer Student Club Core Team at The University of Texas at Arlington.
- **Social Media Manager** - Indian Mavericks Society at The University of Texas at Arlington.