Bharath (Barry) Murthy

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**Skills**

Data Science, Analytics, Analysis and Decision Making; Database Management; Data Administration

R, Python; C#/C++; Minitab; SAS; Tableau; Microsoft Excel, Access, Visio; SQL Server Manager; MangoDB, LabView; Dataframe; ArcGIS; CostPoint; Tera Term;

* Use of R, Minitab and SAS to perform hypothesis tests, manage functions/macros, apply regression models, import data, find patterns/trends in plots, and estimate data for particular parameters.
* Use of basic decryption programs in C++, using strings/vectors to simulate catalogs, stack data and perform basic search optimization.
* Use of ArcGIS to help create visualizations of map data and complement output findings from R and/or SAS.

Licensed remote drone (small unmanned aircraft) pilot.

**Experience**

**Raytheon Missiles and Defense - Engineering Intelligence Analyst (Feb 2022~):**

* Creating dashboards that help govern the **FRACAS** (Failure reporting, analysis, and corrective action system**)** process. Used to monitor metrics in terms of defects found in production.
* Using RFRACAS tool to manage the results from Failure Review Board meetings, track Corrective Actions and the status of known defects for various projects.
* Creating interactive dashboards in PowerBI that track oracle database changes in real-time with slicers that can be used to filter various fields as needed for analysis.

**Physical Optics Corporation (POC) - Research Data Analyst (2017-2021):**

*(POC has recently been acquired by Mercury Systems, Inc.)*

* Used Python [Pandas Package] to analyze Dictionaries and Dataframes and create time series models/regression models. Used Python and machine learning techniques such as Holt-Winters forecasting to assist in preparing a Recurrent Neural Network (RNN).
* Piloted and tracked remote drone flight using antenna and rangefinders to collect GPS data, elevation, azimuth, and Doppler range for use in DASYlab, using rooftop-mounted SpotterRF data collection to track geospatial data free from ground floor noise.
* Used Microsoft Visio to create diagrams for engineers to better visual mechanical designs, creating diagrams for client presentations and to contract funding presentation.
* Used CostPoint to create purchase requisitions for ordering parts and materials corresponding with designs.
* Compiled information from academic journals and papers to inform sections of tech proposal writing. E.g: analyzing confusion matrix/False Acceptance Rates for authentication using retinal, iris, fingerprint biometric scanning. Assisting with documentation for manual(s) explaining hardware setup, software integration, and commands.
* Created algorithm using Python to receive and sort Excel data tracking RF bandwidth ranges according to test specifications, providing output data to Dataframe then used for further testing
* Used LabView to capture radio signals and present a self-updating visual Heads Up Display (HUD) for required data.
* Assisted gathering and analyzing Ionosonde data.
* Helped perform cluster analysis on deep neural network data.
* Programmed Arduino Rover. Used C# for developing application with Tera Term to program Beaglebone board and C and C++ for front-end application to manage associated hardware.

**Education**

**Master of Science in Applied Data Science (In work 2020-2022)**

**Syracuse University**

**Planned Graduation Dec 2022**

Data Admin Concepts and Database Management, Data Warehouse, Introduction to Data Science, Data Analytics, Data Analysis and Decision Making, Natural Language Processing, Scripting in Python for Data Science, Business Analytics, Data Visualization, Financial Analytics, Big Data Analytics, Cloud Management,

**Bachelor of Science in Statistics**

**University of California, Riverside (UCR)**

**Graduated June 2017**

Introduction to Quality Improvements; Sample Surveys; Nonparametric Techniques in SAS, R, and Minitab; Statistical Computer Packages in SAS; Decision Analysis and Management Science; Elements of Probability and Statistical Theory; Statistical Computing and Probability and Statistics for Science and Engineering; Regression Analysis; Design of Experiments; Generalized Linear Models; Introduction to Data Science

**Projects**

*Masters in Applied Data Science (July 2020-present):*

Used R and Excel to analyze data scraped observations from anime-planet and used to aggregate users by interest, year, format, etc.

Used SQL Server Manager alongside Microsoft Access to create a frontend UI to navigate database

Applied various supervised and unsupervised learning techniques such as Random Forest, Support Vector Machines, k-nearest neighbors to analyze daily stock price movements and study random walk theory.

Joined a group Kaggle competition involving analyzing ways to better flag inflammatory responses in Quora forums.

*Highlander Statistics Society and Academics (2014-2017)*

Statistical Consulting Final Project: Analysis on combatting Glassy Winged Sharpshooter pest using Wasps. Given experiment design, provided reports regarding different treatment combinations to inform future decisions of researchers.

Participated in American Statistical Association DataFest 2016 and 2017: Worked with Ticketmaster to confront the existence of ticket scalpers and to seek and appeal to true fans of the site. Expedia 2017: Used popular destination sites to find optimized pricing throughout the year

Research assistant for OBSERVE lab in UC Riverside (2016) Using transcripts of graduate student responses regarding student advisors, classified responses to help determine relationship between success in job market and experience with advisor.

Assisted with Recall app at the University of California, Riverside Brain Game Center:

Participated in experiment for memory enhancing mobile game. (Recall)