Nischal Mahaveer Chand

Somerville, MA | nischal.bhatewara@gmail.com | (857) 277-9145
Blog: medium.com/@darkestfloyd | LinkedIn: nischalmc | GitHub: DarkestFloyd

WORK EXPERIENCE

BERG LLC, Framingham, MA   Nov 2019 - present
Data Scientist II,   HPC engineer
Tools: R, RStudio, Shiny, tidyverse, git, linux, ganglia
- Statistical analysis:
  - Perform survival analysis on cohort of n>100 pancreatic cancer patients to understand effectiveness of various chemotherapy and adjuvent treatments using Kaplan-Meier curve in R, resulting in a poster presentation at ESMO 2020.
  - Perform statistical analysis on omic data (p>20k) using Wilcox tests and ordinal regressions to obtain predictive biomarker panel for early detection of Pancreatic Cancer and for survival related outcomes in cohort of n>100 patients.
  - Perform validation study using open and freely available data from NCBI websites, backing internal results with independent data resulting in stronger papers and posters for conferences.
- Data pipelines:
  - Built fully automated data processing pipeline to process longitudinal clinical data of n>200k patients, resulting in discovery of various clinical features that impacted survival outcomes for COVID-19 patients by bAIcis®.
  - Built data processing pipeline to gather data from multiple data sources - clinical data using RESTful API, omics data from SQL servers and excel files - for n>450 patients, further performing QC checks and merging data based on timepoints.
  - Built pipelines to obtain external Patent data (uspto.gov), DrugBank data (drugbank.com), PubMed data (NCBI) and cross-reference with internal biomarkers for use by upper management, cutting down time required to find key markers.
  - Improve legacy SQL data pipeline by applying filters and aggregation in SQL to cut down processing time by 68%.
- Data dashboards and visualizations:
  - Built interactive data dashboard to allow clinicians to examine impact of clinical features on survival outcomes for various subpopulation of COVID-19 patients (by age, race, comorbidities, etc), further deployed dashboard on Azure cloud.
  - Built R-Shiny dashboards to track key metrics and provide overview of internal processes and data stores.
  - Create data visualizations of analysis methods and results for publications and posters using ggplot2 in R.
- Deep learning: Trained over 2k deep neural network models to optimize running time and precision of bAIcis®using keras, cutting down on-boarding time of new team members getting started with bAIcis®.
- Provide support to Analytics team as Linux administrator for Analytics Server (Turing) and HPC cluster of 55 CPU nodes and 2 GPU nodes (Bayes cluster), further deploy and test new versions of bAIcis®on cluster.
- Contribute to company IP via software implementations and improvements to AI platform and legacy dashboards.

Marcus Institute for Aging Research, Hebrew SeniorLife, Roslindale, MA   July 2018 - Dec 2018
Junior Data Scientist / Co-op Student
- *AD Supplement*:   - Performed regression analysis and hypothesis testing on clinical trials data using R and SQL.
                       - Actively communicated results to directors and researchers.
- *Smartphone Lab*:   - Built data processing pipelines for time-series sensor data using R and SQL.
                       - Improved data processing speeds by upto 13%.
- *shinyMRI*:   - Built scalable R shiny application to visualize 3D and 4D MRI images.
                       - Improved diagnosis speed for in-house Alzheimer's research.
                       - Application received honorable mention by RStudio, Inc.

EDUCATION

NORTHEASTERN UNIVERSITY, Boston, MA
Khoury College of Computer Sciences, GPA: 3.79/4.0   Sept 2017 - Aug 2019
Master of Science in Data Science
Related Courses: Supervised Machine Learning; Unsupervised Machine Learning and Data Mining;
                 Data Visualization; Natural Language Processing; Statistics for Bioinformatics; Algorithms
TA positions: Data Management in R (Spring 2019); Unsupervised Machine Learning (Summer 2019)

ALLIANCE UNIVERSITY, Bengaluru, India   2013 - 2017
Bachelor of Technology in Computer Science Engineering
Related Courses: Data Mining and Data Warehousing; Big Data Analytics; Design and Analysis of Algorithms

HONORS AND ACHIEVEMENTS

- Panelist for Northeastern University UNCOVER COVID datathon.   Sep 2020
- Presented *MURA visualization tool* at The Northeastern University Visualization Consortium.   Apr 2019
- Honorable mention for *shinyMRI* by RStudio.   Apr 2019
- Graduate speaker for TechTalks at Grad TechDay, Khoury College.   Mar 2019
- Coordinated and organized CodeWars, a 24-hour hackathon as part of university fest at Alliance University.   Oct 2015