Zahra Malwi

zmalwi2@illinois.edu | +1 (872) 808-5180 github.com/ZahraMalwi | linkedin.com/in/zahra-malwi/

EDUCATION

University Of Illinois Urbana-Champaign **Dec 2022**
Master of Science in Information Science ***GPA: 4.0/4***
Data Visualization; Data, Statistical Models & Information; Information Modelling; Method of Data Science, Data Warehousing & Business Intelligence

MediCaps Institute of Technology and Management, Indore, M.P. **May 2019**
Bachelor of Engineering, Computer Science ***GPA: 3.7/4***
Operating Systems; Database Management System, Data Science & Big Data, Software Engineering & Project management,
Data Structures I & II, Web Development, Advance Algorithm Design and Analysis, Web Engineering, Cloud Computing

TECHNICAL SKILLS

Languages: Python, R, SQL, JavaScript, HTML/CSS, Java
Frameworks & Libraries: PySpark, HDF5, Matplotlib, Bqplot, Vegalite, Seaborn, Numpy, Sklearn, Tensor Flow, Spring MVC, Spring Boot, Junit, JMockit, OpenCV, Log4j, Maven, Jenkins, Angular8
Developer Tools: Hadoop, Apache Kafka, Spark, Github and Version Control, AWS-S3, Visual Studio, Jupyter Notebook, Tableau, Excel, Eclipse
Industrial knowledge: Software Development Life Cycle, Agile Development Cycle (Jira), Scrum, Asana, Snowflake
Certifications: Google Data Analytics, Exploring and Producing Data for Business Decision Making, Inferential and Predictive Statistics for Business

EXPERIENCE

Centre for Health Informatics, Information School, UIUC – Research Internship **Aug 2021 – Present**
- Processed 21M rows of the COVID-19 and Influenza like illnesses (ILIs) datasets collected for the state of Illinois to perform Logistic and Multiple Regression and compare the effects of both diseases
- Assembled the **Vaex** framework with the **HDF5** files to handle 21M rows in Python alongside using Apache Spark and Hadoop to increase the efficiency by **30%**
- Developed a risk analysis framework using deep learning model to quantify the risk associated with Covid -19 and ILIs diseases

Differentiating Between Streets & Sidewalk | Data Visualization **Aug 2021 – Dec 2021**
- Predicted an electric scooter's location accurately based on Accelerometer, Gyroscope, and Magnetometer measurements gathered real-time through communicative visualizations
- Curated a Scatter Plot, Correlation Matrix, and Line Graphs using iPywidgets and Traitlets to compare the Street and Sidewalk datasets and determine the features to train the ML model precisely

Mobile Price Classification with Feature Significance Analysis **Aug 2021 – Dec 2021**
- Engineered a Mobile Price Classification dataset to determine the price range of a mobile phone so that the consumers can make an informed decision
- Juxtaposed K-Nearest Neighbors, Support Vector Machines, and Linear Regression Machine Learning models' outcomes to estimate the price range
- Forecasted significant features for classification through Inferential Predictive Analysis

ValueLabs LLP – Software Engineer **July 2019 – July 2021**
- Rebranded the loan services client website using **Spring MVC, JUnit, JMockit, Log4j2,** increasing the efficiency of the backend by 60%
- Facilitated Quality Assurance by creating and automation testing pipeline, thereby reducing manual load by 30%
- Reduced time complexity by 40% by optimizing the procedure for querying the client's relational database system using SQL queries
- Collaborated with the Data Analytics team to deploy a dashboard for the CPU, RAM, and Heap resources of the Server using the logs of the legacy application to ensure its good health

Indian Institute of Technology, Patna – Research Internship **June 2019 – July 2019**
- Presented a 40% more economical way for identifying resource provisioning for multi-objective trade-offs between containers and servers under IaaS Cloud
- Developed a Python module to reduce algorithm complexities by 10% for online double auction
- Visualized the comparison of the trade-offs between various parameters using Matplotlib to showcase 16% revenue maximization and 5% energy minimization

Face Recognition and Home Security System **July 2018 – Apr 2019**
- Operated on the widely used Labeled Faces in the Wild (LFW) dataset using **OpenCV** and a Convolution Neural Network based image detection & recognition system having accuracy of 99.63%
- Achieved representational efficiency of image using only **128-bytes per face** by employing the **Triplet Loss** method and successfully identifying a credible person within the security camera frame

JOURNAL PUBLICATION

YS Patel, **Zahra Malwi**, A Nighojkar, Dr. R Misra, **Springer Cluster Computing**, 1-25," Truthful Online Double Auction Based Dynamic Resource Provisioning for Multi-objective Trade-offs in IaaS Clouds**"**, 10.1007/s10586-020-0322link.springer.com/article/10.1007/s10586-020-03225-9 **Jan 2020**

ACHIEVEMENTS AND EXTRA-CURRICULARS

- **Employee of the Month, ValueLabs LLP,** 2020. Rewarded for continuous arduous efforts on the client engagement
- **Core Member Editorial Board, Abhivyakti**, **MediCaps University**, 2015-2019: Core committee editor for the college magazine. Took interviews of the influential leaders and activists. Responsible for the editing and formatting of the magazine
- **Vice President at AIESEC, Local Committee Indore**, 2015 to 2017: Spearheaded the Incoming Global Volunteers department. Tasked with delivery of more than 20 international intern experiences and city level events. Established a connection between the local committee and international representatives