

Shalmali Walimbe

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SKILLS

- **Programming Languages** - Python, R, C++, C, Java, \LaTeX
- **Frameworks** - MATLAB, Keras, Tensorflow, Flask, Hadoop Mapreduce, Apache Spark
- **Data Engineering** - MySQL, Postgres, Data ETL
- **Web Development** - Javascript, HTML, CSS
- **Infrastructure** - Git, Spyder, RStudio, Tableau

EDUCATION

Indiana University

Masters of Science, Data Science

Indianapolis, IN

Aug 2021 - May 2023

Pune University

Bachelor of Engineering in Electronics and Telecommunication

Pune, India

July 2014 - May 2018

- **GPA:** 3.5/4

EXPERIENCE

Human Centered Computing - Indiana University

Graduate Research Assistant

Indianapolis, IN

Aug 2021 - Present

- Developed a visual analytics tool using Bayesian linear regression model to conduct belief driven analysis, against the data combined with traditional data driven analysis.
- Studying the impact of this mixed analysis style on participant's cognition and subsequently capture the difference between the updated prior against the ground truth.
- Built using Python, JavaScript, R, Plotly, Matplotlib.

Sciffer Analytics

Jr. Data Scientist

Pune, India

Nov. 2020 - Aug. 2021

- Developed a Mixed Integer programming based optimizer for advertisement scheduling using the mathematical optimization suit PySciOpt. Implemented data pipeline for data ingestion from JSON files and preprocessing with Pandas, Numpy. Improved this model by **20%** by altering its constraints to finely adjust for client needs with Python and PySciOpt.
- Slashed the preprocessing time (by **25%**) by designing automated tools for frame extraction from unstructured video data and fast and accurate annotation and feature tagging. Designed an RCNN object detection model using Keras to detect human actions in videos (**85%** accuracy).
- Built using Keras, Pandas, Numpy, PySciOpt, Scipy.stats.

iAssureIT

Business Analyst

Pune, India

Feb 2019 - Aug 2019

- Effectively communicated client requirements to the system architect and software developer, designed a cost-benefit analysis and delivered a comprehensive budget tailored to these requirements.
- Fostered communication between stakeholders, engineering, and clients, resulting in an accelerated feature development life-cycle by **12%**.
- Built using SQL, Tableau, Microsoft office.

Bioinformatics Center - Pune University

Research Associate

Pune, India

May 2018 - Dec 2018

- Developed a Mapper function on a single node for similarity search of protein sequences using Python and Hadoop-Map Reduce, and enabled horizontal scaling to reduce the processing time by **15%**.
- Delivered an SVM classifier to differentiate antibodies into their respective classes (**73%** accuracy).
- Built using Python, scikit-learn, Matplotlib, Seaborn.

PROJECTS

- Developed a churn predictor for a music platform using ML-PySpark. Winter, 2020
- Designed a recommendation system for identifying relevant journals, and articles from IBM Watson studio using collaborative filtering and content based recommender. Fall, 2020
- Implemented a Flask Web App for sending emergency texts, built an NLP ETL pipeline to transform these texts into an SQLite database and classified them with Random Forest. Fall, 2020