

# AVINASH MADHUKAR PAWAR

Bloomington, IN | +18122720824 | avipawar@iu.edu | linkedin.com/in/avinash-m-pawar

## Education

### INDIANA UNIVERSITY, BLOOMINGTON

Indiana, USA

*Master of Science in Data Science*

August 2021 - May 2023

**Coursework :** Engineering Cloud Computing, Advanced Database Concepts, Intro to Statistics, Data Mining, Machine Learning for Signal Processing, Applied Machine Learning, Intro to Bioengineering, High Performance Computing.

### DEPARTMENT OF TECHNOLOGY, SHIVAJI UNIVERSITY

Kolhapur, India

*Bachelor of Technology in Computer Science and Technology*

August 2016 - March 2020

**Coursework :** Data Structures and Algorithms, Digital Systems and Microprocessor, Computer Networks, Operating Systems, Computer Graphics, System Programming, Database Engineering, Compiler Construction, Distributed System.

## Skills, Activities and Interests

|                                |  |
|--------------------------------|--|
| <b>Languages:</b>              | Python, R, SQL, JAVA, C++, HTML, CSS, JavaScript                                     |
| <b>Frameworks:</b>             | Numpy, Pandas, Sklearn, Matplotlib, Seaborn, TensorFlow, Tidyverse, ggplot2, dplyr   |
| <b>Tools:</b>                  | Git, Jupyter Notebook, PostgreSQL Studio, SQL Developer Studio                       |
| <b>Platforms:</b>              | Linux, Windows, Google Cloud Platform, AWS   |
| <b>Statistical Techniques:</b> | Probability Theory, Descriptive and Inferential statistics, ANOVA, A/B Testing       |
| <b>ML Algorithms:</b>          | Linear and Logistic regression, Random Forest, Naive-Bayes, K-Means, Neural Networks |
| <b>Miscellaneous:</b>          | Microsoft Excel, Adobe XD, Adobe Premiere Pro, Adobe Illustrator, Adobe Photoshop    |

## Experience

### Indiana University Libraries

Bloomington, IN, USA

*Depository Processing and Cataloging Assistant, FDL P Technical Services*

October 2021 - Present

- Generated reports for unclean metadata using SQL queries, cleaned and preprocessed the data using Python and Excel, resulting in improved metadata quality and processing speed by 40% and 30% respectively.
- Processed and Cataloged more than 1000 books, maps, Federal documents with Speciality in Monographic Text records.
- Daily tasks: Cleaning and updating metadata from OCLC. Cataloging New arrivals from Government Publishing Office.

### Digital Microsys Technologies

Kolhapur, India

*Full Stack Developer*

May 2020 - May 2021

- Operated within a 8-member team to design Front-end User Interfaces and Databases for web applications.
- Maintained codebase in 11 projects. Assisted in developing 9 full-stack projects resulting in a 30% faster completion.

## Projects

### Analysis and Modeling of Insurance Data

- Analyzed a large dataset of insurance data to gain insights and identify trends. Conducted data cleaning, exploratory data analysis, and feature engineering to prepare the data for modeling.
- Built predictive models using linear and polynomial regression, 4-fold cross-validation, and regularization techniques (Ridge, Lasso, Elastic Net) to optimize performance and forecast insurance outcomes.
- Assessed model accuracy via evaluation metrics (MSE, MAE, R-squared), compared predictions to actual outcomes.

### Analysis and Visualization of Media Coverage On Common COVID-19 Glossary

- Managed a team of 4 to create a powerful dashboard for visualizing and analyzing 700 GB of COVID-19 media data.
- Conducted visualization and analysis of geospatial data using choropleth maps, topical data using word clouds and bar plots, and temporal data using stream graphs and timelines.
- Used google data studio, google bigQuery, Tableau, and PowerBi for visualization and analysis.

### Map Reduce based Search Engine

- Designed a bot script for acquiring over 1000 text books from Project Gutenberg and indexing their words. Improved data quality through cleaning, preprocessing, and feature engineering.
- Developed and deployed Mapper and Reducer functions using NodeJS as Google Cloud Functions, and Built a web UI with fast search function (less than 1s results). UI includes advanced option for batch testing with file link input.

### Voice Assistant for Smart Mirror

- Led a team in the development of a Voice-Controlled Assistant for a Raspberry Pi Smart Mirror device using Python, HTML, CSS, JavaScript, SQL, Angular.JS, and Bootstrap framework.
- Created Weather, Calendar, Music player and News apps from scratch, deployed on Raspberry-Pi with Linux.