SHREYAS ASWAR

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EDUCATION

Indiana University Purdue University — Indianapolis, IN
Master's in Applied Data Science (GPA: 3.97/4) — Anticipated: May 2024

Savitribai Phule Pune University — Pune, India
Bachelor's in Computer Engineering — July 2018

EXPERIENCE

Graduate Research Assistant — July 2023 – Present
DATA Lab, IUPUI — Indianapolis, IN

- Developed binary classifiers using Logistic Regression, GRU, and CNN models to differentiate dialects and analyze linguistic features, such as copula deletion and double negation, achieving over 85% accuracy in classification.
- Doubled seq2seq translation model accuracy to a 0.5 BLEU score by incorporating neural network advancements, including multi-headed attention and subword tokenization.

Graduate Research Assistant — October 2022 – Present
Purkayastha Lab for Health Innovation, IUPUI — Indianapolis, IN

- Adapted and trained Vision Transformer and RNN Transducer models on healthy subjects' data to recognize activities in Parkinson's patients within a cross-context setting, achieving an accuracy of over 80%.
- Leveraged machine learning models like XGBoost, LSTM, and BiLSTM to generalize activity recognition from healthy to Parkinson's patients with 60% accuracy.
- First author on research paper 'Generalizability of Human Activity Recognition Machine Learning Models from Healthy to Parkinson's Disease Patients' presented at the IEEE EMBS 2023.

Graduate Research Assistant — August 2022 – December 2023
Human-Centered Computing Department, IUPUI — Indianapolis, IN

- Developed a MySQL database for faster data access and crafted impactful visualizations with Matplotlib, Seaborn, d3.js, and Tableau, collectively enhancing analysis and understanding by 20%.
- Enhanced research project workflows and experimental designs, leading to a 10% boost in efficiency across multiple projects.

Data Analyst — December 2018 – November 2021
Gut Lernen Technocraft — Pune, India

- Led incorporation of several ML regression models with an ERP platform, from POC to production using Python, Pandas, NumPy, Random Forest, SVM, and Decision Tree hosted on AWS EC2 achieving over 78% accuracy.
- Formulated a sentiment analysis model with NLTK and TextBlob for course reviews, boosting student enrollment by 25%.
- Examined behavior patterns with statistical analysis using R, resulting informed decision-making and a 20% increase in sales.
- Revamped the ERP software's data storage infrastructure with a MySQL database, overcoming data inconsistency challenges, enhancing data accuracy by 20%.
- Drove a 25% reduction in project timelines through effective interdisciplinary team collaboration and knowledge exchange.

SELECTED PROJECTS

Cloud-Based Generalized CSV Analyzer | *PySpark, AWS Lambda, EC2, S3, Glue* — August 2023 - December 2023

- Spearheaded developement of AWS app for instant CSV analysis, for key statistical insights, achieving 75% time reduction.

Life Years Lost | *D3.js, Matplotlib, JavaScript, Seaborn* — August 2023 - December 2023

- Created an interactive website visualizing U.S. suicide trends, enhancing data engagement.

Job Description and Resume Matching | *Numpy, Transformers, Deep Learning, GPT* — January 2023 - April 2023

- Built an AI model for efficient resume-job description matching, streamlining recruitment, cutting processing time by 80%.

Event Extraction and Notification Chrome Extension | *Python, NLP, NER* — January 2018 - June 2018

- Implemented a Chrome extension using NER for efficient email event extraction and notifications.

SKILLS

Programming: Python, R, C++, Bash, SQL, JavaScript, HTML/CSS
Data Management: Apache Hadoop, Spark, AWS, Google Cloud, Azure, MySQL, PostgresSQL, MongoDB, HBase
Data Analysis: Numpy, Pandas, Dplyr, Scikit-learn, TensorFlow, PyTorch, Excel, NLTK, Keras, Gensim, SpaCy
Visualization & Tools: Matplotlib, Seaborn, ggplot2, d3.js, Tableau, PowerBI, Git, Docker, Jupyter