Aryan Sharma

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Education

University of Michigan, Masters in Data Science 08/2023 – present
Ann Arbor, US

- Course Highlights: Machine Learning, Large Language Models, Data Manipulation and Analysis.

PES University, Bachelor of Technology in Computer Science and Engineering 08/2019 – 06/2023
Bengaluru, IN

- GPA: 3.28/4.0
- Course Highlights: Machine Learning, Statistics for Data Science, Cloud Computing, Big Data, Data Analytics, Database Management System.
- Awards/Honors: Prof. M R Doreswamy Merit Scholarship for excellent academic performance.

Professional Experience

Amazon, Software Development Engineer Intern 05/2024 – present
Seattle, US

• Implemented a distributed lock mechanism in the AWS Batch Scheduler for the customer's namespace, which helped prevent completely blocking job queues and ensured accurate calculation of vCPUs by avoiding multiple scheduler assignments during grey failures.
• Enhanced the robustness of the AWS Batch Scheduler by adding detailed monitoring metrics for tracking the bootstrapping process of all Managers in the AWS Batch Scheduler, providing visibility into each stage.

University of Michigan, Graduate Student Instructor - Statistics 250 - Introduction to Statistics and Data Analysis 01/2024 – 05/2024
Ann Abor, US

- Led and facilitated engaging discussion sections for large lecture courses, resulting in a 20% increase in student participation and comprehension.
- Designed and graded assessments, providing constructive feedback to promote students' academic growth in laboratory sections and Office Hours.

Genpact, Data Scientist 02/2023 – 08/2023
Bengaluru, IN

- Spearheaded the creation of data-driven dashboards and conducted in-depth trend analysis on key performance indicators, resulting in a 30% reduction in customer churn and a 25% increase in average order value.

PES University, Teaching Assistant - Statistics for Data Science 06/2022 – 11/2022
Bengaluru, IN

- Orchestrated interactive classroom sessions, delivering curriculum-based problem-solving activities to engage students; achieved a 25% increase in participation and improved academic performance by 15%.
- Facilitated dynamic, interactive sessions to enable undergraduates to apply theoretical concepts learned in class, resulting in a 25% increase in comprehension and application of course material.

Smarthub.ai, Data Analyst 06/2022 – 10/2022
Bengaluru, IN

- Developed and implemented a machine-learning model for TVS Motors' Paint Optimization Project, resulting in a 98% reduction in paint runoff, resulting in significant cost savings and environmental impact.

Skan.ai, Data Science Intern 06/2021 – 08/2021
Bengaluru, IN

- Implemented a process similarity matrix to identify and analyze anomalous data patterns; enabled the company to streamline sequential processes, leading to a 30% reduction in operational bottlenecks and a 20% improvement in overall productivity.

Publications

RtTSLC: A Framework for Real-Time Two-Handed Sign Language Translation, 2023
Springer, DOI: https://link.springer.com/chapter/10.1007/978-981-99-0769-4_62
- Conceptualized a framework for Real-Time Two-Handed Sign Language Translation in Indian Sign Language (ISL); showcased research results at the internationally recognized **International Conference on Smart Trends in Computing and Communications**.

Sign Language Translation Systems: A Systematic Literature Review, 2022
IGI-global, DOI: https://www.igi-global.com/gateway/article/311448
- Surveyed Literature on Translation Systems by reviewing and summarizing more than 200 research papers and articles.
- Published in **IGI Global** an international academic publisher.

Cardiac anomaly detection models for wearable devices, 2021
Student Research Symposium (SRS)
- Developed an architecture for a wearable device for classifying 2-lead ECG signals with 98% accuracy.
- Poster accepted at **13th HiPC Student Research Symposium (SRS),28th IEEE International Conference** on High-Performance Computing, Data, & Analytics that was held in Bengaluru, IN.

Projects

RealSign: Real-Time Instantaneous Bi-Directional Sign Language Interpretation, 02/2022 – 06/2023
Capstone Project
- Developed and deployed an innovative application software utilizing AI and computer vision technologies to facilitate bi-directional real-time translation of Indian Sign Language (ISL) into speech/text and vice versa, improving accessibility for the hearing impaired community.

ECG Classification, CHIPS (Centre for Heterogeneous and Intelligent Processing Systems) 08/2021 – 12/2021
- Developed a TensorFlow-Keras machine learning model to classify 2 lead ECG signals with 98% accuracy.

Skills

Machine Learning: TensorFlow, Keras, PyTorch, NumPy, Pandas, **Data Visualisation/Business Insights:** Power BI, Tableau, **SQL:** pymongo, mongoDB, **Programming:** Python, R, C/C++, JAVA, **MATLAB**