Dhanush Biligiri

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PROFILE

Master's graduate in Data Science with expertise in Data Mining, Predictive Modeling, model building, analytics, and visualization. Seeking a full-time role in Data Analytics, Data Engineering, or Business Analytics starting Summer 2024

SKILLS

Languages: *Python, R, SQL, C++*, **Software:** *Jupyter, Mujoco, Hadoop, Spark, Tableau, PyCharm, PowerBI, SPSS, SSMS, Git*,
Certifications: *Introduction to Quantum Computing (2020-2021), Python programming, Introduction to Machine Learning*

EDUCATION

Michigan Technological University, *M.S Data Science* *GPA - 3.75/4.00* Aug 2022 – Apr 2024 | Houghton, MI
- Representative for the Computer Science Department in the Graduate Student Government.

New Horizon College of Engineering, Aug 2018 – May 2022 | Karnataka, India
B.E Information Science and Engineering *GPA - 3.62/4.00*

PROFESSIONAL EXPERIENCE

Aeronautical Development Establishment, DRDO, Feb 2021 – Apr 2021 | Bengaluru, India
Software Engineer Intern
PROJECT - 'Real-time Analysis of Flight and ground systems parameters and report generations'
- Engineered a UAV software module for streamlined data collection and analysis by almost 40% while equipped with a custom interface for Ground Control System officers.
- Achieved a 30% improvement in report generation efficiency and accuracy by amplifying module functionality.

PROJECTS

RL-Based Trajectory Optimization for Cassie Robot Apr 2024 – present
- Enhancing RL-based control for Cassie robot using MuJoCo, achieving 16% improvement in joint configuration.
- Developing a neural network to predict and optimize Cassie's joint positions, aiming for a 25% increase in trajectory precision and smoother movements.

Evaluation of Detection Models with Enhanced Underwater Imagery Apr 2024 – Jun 2024
- Utilized the Semi-UiR algorithm to enhance underwater images, achieving a 12% improvement in image clarity, which contributed to a comparative study for image detection.
- Deployed two YOLO-v8 models for object detection on enhanced and regular underwater images, with regular images demonstrating 30% better detection accuracy.

Franchise Data-Driven Benchmarking Jan 2024 – Apr 2024
- Developed a data integration and dashboard solution using SSIS, SSMS, and Power BI, improving decision-making efficiency and accuracy by 15% and 20% respectively.
- Enhanced identification of underperforming stores and optimized cost by 35% using predictive analytics.

Time series forecasting for mortality Feb 2023 – Apr 2023
- Analyzed and executed CDC's 11-year National Vital Statistics dataset, focusing on the top 7 causes of death to identify mortality patterns and trends, enhancing understanding of specific causes.
- Achieved a 92% accuracy in classifying mortality causes by using the XGboost model for data regression, significantly contributing to public health strategy development.

Pneumonia Detection Using Deep Learning Jan 2022 – Jul 2022
- Processed 6500 X-ray images and Developed a deep learning model with Python, OpenCV, Keras, and TensorFlow, achieving 91.5% accuracy in detecting pneumonia.

RESEARCH EXPERIENCE

Department of Applied Computing, *Graduate Research Assistant* May 2023 – Jan 2024 | Houghton, MI
Cross-View Image Geolocalization, Vision Transformer in Hyperspectral Image Classification
- Drafted survey paper on Vision Transformers in HSI Classification derived from over 50 implemented models.

Department of Computer Science, *Graduate Research Assistant* May 2023 – Aug 2023 | Houghton, MI
Hidden Curriculum - Department of Computer Science
- Developed a 'College of Computing Resource Hub' Canvas module, assisting over 1000 students in mastering key concepts such as Linux hierarchy and version control systems.

TEACHING EXPERIENCE

Department of Applied Statistics/McNair Scholars, *Teaching Assistant* Aug 2023 – May 2024 | Houghton, MI
- Designed course material, evaluated students and provided academic mentorship for over 100 students in Engineering Statistics and McNair scholarship program.