

HASARANGA JAYATHILAKE, MS

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Data Analysis / Machine Learning / Process Architecting / Data Visualization

Dedicated experienced professional with strong educational background in business analysis and system architecture. Proficient in Python, R, SQL, JavaScript, Tableau, and lean and project management. Competent at business process understanding, conducting exploratory data analysis with interpretations utilizing visualization techniques, algorithm development on modeling and simulations. As a collaborative ethical team player synergistically works in challenging environments to deliver strategic insights exceeding expectations to achieve sustainable competitive advantages.

Professional Skills

Data Analysis / Lean System Architecture / Machine Learning / Algorithm Development / Problem-Solving / Agility Visualizations / DevOps / Project Management / Team Collaboration / Communication / UI/UX Design / Documentation

Technical Proficiencies

Python, R, SQL, JavaScript, Tableau, PowerBI, Pyspark, D3, HTML, MYSQL, AWS(S3, EC2), NLP, PyTorch, NumPy, Pandas, MS-Office, Matplotlib, JSON, MongoDB, Jira, CSS, PowerShell, SEO, ERP, SAP, Git, SIX SIGMA, SPSS, UX/UI

EDUCATION

Indiana University, Indianapolis, IN (CGPA: 4.0): MS Applied Data Science (Expected 2024)

Sheffield Hallam University, Sheffield, UK (GPA: 3.55 – Merit Pass): MS Logistics and Supply Chain Management (Honors)

General Sir John Kotelawala Defence University, Sri Lanka (GPA: 3.89 – First Class): BSC Logistics Management (specialized in Supply chain management) (Honors)

WORK EXPERIENCE

Luddy School of Informatics, Computing, and Engineering, Indianapolis, IN 2023 – Present

Head of Data Science – COMET Lab (Convergent Media and Exploratory Technologies Lab)

- Lead and advise Data Science – AI and Visualization projects, ensuring quality and alignment with client expectations.
- Developed a standardized Git Repository for all project tracking, client engagement, and continuous improvement.
- Designed standardized practices (SOPs) for all operational practices for the lab and published, on a dedicated website.

Adjunct Instructor - Information Representation - Department of Human Centered Computing

- Instructed, assessed, undergraduates, improved materials on relational databases, SQL, design, normalization, triggers, backup, security, data management, JSON, and XML integration to SQL for MySQL database usage.

Human Resource Management Institute (HRMI), Colombo, Sri Lanka 2021 – 2022

Lecturer – Supply Chain & Project Management, Business Analytics

- Academical Impact: Developed curriculums for supply chain, project management, and business analytics on master's and undergraduate level modules offered for the *University of Northampton – UK via HRMI – Sri Lanka*.
- Business Impact: Designed an efficient computer system, reducing academic support staff workload by 50% and improving staff retention by 35% year-over-year.

MSS Sri Sai Enterprise, Hulu Langat, Selangor, Malaysia 2017 – 2021

Financial and Operation Analyst

- Business Impact: Reduced overvaluation of purchased materials by 75% by creating a payment system that accurately assesses their value.
- Improved the tender bidding success rate of the company by 80% by standardizing tender practices of the company.

Industrial Clothings Pvt. Ltd., Avissawella, Sri Lanka 2016 – 2017

Demand Planner

- Business Impact: Contributed to a 50% increase in on-time shipments by collaborating on an SAP ERP project for shipment planning from East Asian suppliers to North American customers.

DP Logistics (Pvt.) Ltd., Colombo Sri Lanka 2015 – 2016

Operations and System Development Management Trainee

- Business Impact: Designed the workflow of all the logistic company's operations for an in-house ERP solution that reduced the operation cost by 35%.
- Established the standardized operation practices (SOP) guidelines for all the logistics operations.
- Conducted feasibility studies on the new warehouse developments.

VOLUNTEERING SOCIAL WORK

Brightlane Learning., Indianapolis, IN 2022 - Present

Tutor Volunteer: tutoring Mathematics and English for homeless elementary kids in Matchbook Learning at Wendell Phillips 63 and DATKids at IPS 31 in Indianapolis

ACADEMIC PROJECTS

Won the Best Deep Learning Project Award from the IUPUI Computer Science Club's Datathon 2024

- Developed an AI generated text identification module using BERT multilanguage model.

Enhanced Sentiment Analysis Algorithm Using BERT Models for Multilingual Applications.

- Developed a sentiment analysis project using mBERT and PhoBERT models for English and Vietnamese, achieving high precision with LSTM integration and tuning.

Development of Credit Card User Clustering Algorithm for Market Segmentation using R

- Analyzed credit card user behavior using clustering models to identify spending patterns for targeted marketing strategies.

Developed a Text classifier with FastText and Glove Model Embeddings

- Developed a text classifier to improve the accuracy of text identification using pre-trained word embedding techniques.

Led and Built a deep learning model to improve fisheries research outcomes for the Alaska Longline Sablefish region using big data analytics and machine learning techniques with Pyspark.

- Developed a deep learning model to predict fish catch frequencies with various regression models and large-scale data preprocessing and oversaw the project as the team leader as well.

Developed a system to track and oversee data science lab projects using Git and UX feedback.

- Developed a system involving a uniform git repository structure and a communication channel to improve efficiency and collaboration among project teams throughout the lab.
- Designed a website based on user experience feedback by using WordPress and HTML to train and onboard new data science students into the data science lab.

Optimized the reverse mentoring practices by utilizing database using PhpMyAdmin & MySQL Workbench.

- Designed a relational database management system to optimize the performance and management of the reverse mentoring function that aimed to facilitate cross-generational collaboration among professionals.

Publication and Conference participation: Utilizing NLP to understand factors to retain IT professionals.

- **Jayathilake, H. D.,** Daud, D. B., Ching, E. H., & Annuar, N. (2021). Employee Development and retention of Generation-Z employees in the post-COVID-19 workplace: a conceptual framework. Benchmarking: An International Journal.
- **Jayathilake, H. D.,** Barupala, N. P., Jayathilake, J. A., Jayathilake, H. M. (2021). Gamified Feedback and Job Satisfaction of Generation Z Software Professionals in Post-COVID-19 Environment. The International Conference in Data Science, University of Colombo, Sri Lanka.

ADDITIONAL CREDENTIALS

Certifications: Google Data Analytics Professional Certificate / Google IT Support Professional Certificate / Agile Development Specialization - University of Virginia / Digital Product Management Specialization - University of Virginia / Excel Skills for Business Specialization - Macquarie University - Sydney, AUS / Six Sigma Yellow and Green Belt Specialization - University System of Georgia / Business Analytics for Decision Making - University of Colorado Boulder / Supply Chain Analytics - Rutgers the State University of New Jersey / IT Project Management - Indian School of Business / Customer-Centric IT Strategy - University of Virginia / Trained as an Investment Analyst in Copal Amba.

Languages: Fluent in English, Native in Sinhala, Understand in Tamil