

Harsha Halgamuwe Hewage

PhD Candidate · Forecasting and Data Science Expert

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Work Experience

Research Assistant

Cardiff, UK

Cardiff University

Jan. 2024 – Jun. 2024

- Supported the development of a GPT Model for management consulting, coordinating data collection and role-play simulations.
- Organized and conducted 30 role-play sessions.
- Performed a literature review on AI applications in management consulting, contributing to the project's research foundation.

IT Support Advisor

Cardiff, UK

Cardiff University

Sep. 2023 – Oct. 2023

- Provided professional and customer-focused IT support, resolving Wi-Fi and software-related issues for students and staff.
- Coordinated 2 IT clinics in student housing during the induction period, enhancing accessibility and technical readiness.
- Offered in-person assistance at the main IT clinic, troubleshooting Windows OS issues and guiding software installations.

Finance Assistant

Cardiff, UK

Cardiff University

Mar. 2023 – Jul. 2023

- Processed 30+ expense claims per day, ensuring compliance with institutional policies and providing excellent customer service.
- Assisted customers in submitting claims through the system, addressing queries, and resolving issues promptly.
- Performed data entry, customer service, and query handling to maintain seamless operations.
- Ensured compliance by thoroughly checking claims submissions against institutional guidelines.

Senior Business Analyst and Strategist

Colombo, Sri Lanka

Bridge Advisory and Consulting, Sri Lanka

Jun. 2021 – Dec. 2021

- Led projects in digitizing the agriculture sector, introducing e-payment solutions for transportation, and launching a centralized e-KYC platform for the financial sector.
- Contributed to the launch of a cryptocurrency exchange hub, providing strategic guidance and implementation support.

Business Analyst

Colombo, Sri Lanka

ITX360 (Pvt) Ltd, Sri Lanka

Jun. 2020 – Jun. 2021

- Led a team of business analysts in delivering digital solutions for industries including retail, warehousing, healthcare, and e-commerce.
- Secured and managed three major projects, including an agriculture supply chain marketplace and an enterprise system for the national sports sector.
- Developed solution concepts, delivered solution pitches, authored functional documentation, and coordinated client communications to drive project success.
- Managed tender documentation processes, ensuring compliance and competitive positioning.

Research Assistant

Colombo, Sri Lanka

University of Moratuwa, Sri Lanka

Feb. 2020 – Jun. 2020

- Prepared a comprehensive solution architecture for a digital marketplace system for a food company, aligning with business needs and scalability requirements.
- Collaborated with consultants to identify business improvement opportunities, leveraging technology to enhance client operations.

Intern – Supply Chain Consulting

Colombo, Sri Lanka

KPMG Sri Lanka

Jun. 2018 – Dec. 2018

- Conducted comprehensive inventory audits by reconciling SAGE ERP system data with physical inventory, identifying discrepancies and optimizing data accuracy.
- Developed and implemented a Power BI dashboard to monitor key supply chain KPIs, improving decision-making efficiency.
- Evaluated supply chain processes and recommended improvement opportunities, enhancing operational efficiency for a retail client.
- Collaborated on a 5-year corporate plan for a government institution in the petroleum industry, contributing strategic insights and actionable recommendations.

Education

PhD in Forecasting and Data Science

Cardiff, UK

Cardiff University, UK

Sep 2023 – Sep 2026

- Recipient of WGSSS-ESRC Studentship Award
- Project focused on forecasting improvements to enhance reproductive health and family planning operations within global health supply chains, in collaboration with USAID
- Supervisors: Prof Bahman Rostami-Tabar, Prof Aris Syntetos, Dr Federico Liberatore, Glenn Milano (USAID)

MSc in Social Science Research Methods

Cardiff, UK

Cardiff University, UK

Sep 2022 – Sep 2023

- Graduated with a Distinction
- Dissertation: Developing a long-term forecasting and simulation model for NHS workforce planning, in collaboration with NHS Wales

MSc in Supply Chain and Data Science

Moratuwa, Sri Lanka

University of Moratuwa, Sri Lanka

Sep 2020 – July 2022

- Graduated with a Distinction
- Dissertation: Forecasting Retail Sales Across the Sales Promotion Life Cycle: A Machine Learning Framework

BSc (Hons) in Transport and Logistics Management

Moratuwa, Sri Lanka

University of Moratuwa, Sri Lanka

Dec 2015 – Jan 2020

- First-Class Honours
- Logiwiz Award for Best Graduand in Supply Chain Management
- Sri Lanka Ports Authority Award for the Final Year Best Research Project
- Dissertation: Post-Promotional Effects and Judgmental Adjustments

Teaching & Supervision

Graduate Tutor

Cardiff, UK

Cardiff Business School, UK

Sep. 2023 – Present

- Designed lab work materials and lesson plans for MSc-level courses on Forecasting and Business Analytics, utilizing R programming.
- Conducted lab sessions, assisted students with queries, and provided constructive feedback on their work.

Lecturer (On Contract)

Colombo, Sri Lanka

Department of Transport and Logistics Management, University of Moratuwa, Sri Lanka

Dec. 2021 – Sep. 2022

- Designed lesson plans, lecture materials, assessments, and exam questions for BSc-level courses in Supply Chain, Information Technology, and Project Management.
- Collaborated on designing a short course for professionals on Strategic Supply Chain Management.
- Contributed to curriculum revision and the design of a new Master's program in Strategic Supply Chain Management.
- Served as an examiner on panels evaluating 4th-year undergraduate research projects.

Visiting Lecturer

Colombo, Sri Lanka

Department of Transport and Logistics Management, University of Moratuwa, Sri Lanka

Mar. 2021 – Nov. 2021

- Developed lecture materials, assessments, and exam questions for the Principles of Supply Chain Management course.
- Provided detailed feedback to students, enhancing their understanding and performance.

Visiting Lecturer

Peradeniya, Sri Lanka

Department of Operations Management, University of Peradeniya, Sri Lanka

Dec. 2021 – Apr. 2022

- Designed lecture materials for the ICT for Supply Chain Management course, covering technological applications in supply chains and business analysis principles.

Visiting Instructor

Colombo, Sri Lanka

Department of Transport and Logistics Management, University of Moratuwa, Sri Lanka

Jan. 2020 – Jun. 2020

- Developed tutorial materials for the Communication Skills I course, focusing on enhancing student communication capabilities.
- Organized seminars and workshops to improve student communication skills and practical exposure.

Scholarships & Grants

Sep 2022 **Welsh Graduate School for the Social Sciences (WGSSS) Studentship Award**, Cardiff University, UK

Cardiff, UK

Dec 2024 **Taith Research Mobility Funding**, Cardiff University, UK

Cardiff, UK

June 2024 **International Institute of Forecasters Travel Grant**, International Institute of Forecasters

USA

Dec 2023 **Quarterly Forecasting Forum (QFF) Travel Grant**, IIF UK Chapter – International Institute of Forecasters

UK

Aug 2023 **NATCOR Bursaries / ORS Funding**, The Operational Research Society (The OR Society)

UK

Honors & Awards

June 2024	Best Research Student Presentation , ISF 2024: 44th International Symposium on Forecasting	<i>Dijon, France</i>
Aug 2022	Best Research in Undergraduate Category , 7th International Conference on Research for Transport and Logistics Industry (R4TLI) 2022	<i>Colombo, Sri Lanka</i>
Oct 2021	Best Research in Supply Chain , 6th International Conference on Research for Transport and Logistics Industry (R4TLI) 2021	<i>Colombo, Sri Lanka</i>
Jan 2021	Logiwiz Award for the Best Graduand in Supply Chain Management , Department of Transport and Logistics Management, University of Moratuwa	<i>Moratuwa, Sri Lanka</i>
Jan 2021	SLPA Award for the Final Year Best Research Project in Transport and Logistics Management , Department of Transport and Logistics Management, University of Moratuwa	<i>Moratuwa, Sri Lanka</i>
2016-2019	Dean List , Faculty of Engineering, University of Moratuwa	<i>Moratuwa, Sri Lanka</i>
Feb 2018	1st Runners Up , Unilever Challenge 2018	<i>Colombo, Sri Lanka</i>
Jan 2018	Gavelier of the Year , Gavel Club of University of Moratuwa, Toastmasters International	<i>Colombo, Sri Lanka</i>

Selected Presentations

ISF 2024 : 44th International Symposium on Forecasting	<i>Dijon, France</i>
Presenter for "Enhancing Contraceptive Demand Forecasting: A Probabilistic Approach for Improved Family Planning Supply Chain Management"	<i>June 2024</i>
<ul style="list-style-type: none"> Presented a probabilistic forecasting model to improve supply chain management for family planning. 	
NHS Wales Modelling Collaborative: General Conference 2023	<i>Wales, UK</i>
Presenter for "Developing a long-term forecasting and simulation model for mental healthcare workforce planning in the NHS"	<i>Sep 2023</i>
<ul style="list-style-type: none"> Showcased a forecasting and simulation model tailored for NHS mental healthcare workforce planning. 	
IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) 2021	<i>Singapore</i>
Presenter for "Comparing Statistical and Machine Learning Methods for Sales Forecasting during the Post-Promotional Period"	<i>Dec 2021</i>
<ul style="list-style-type: none"> Discussed comparative analysis of statistical versus machine learning methods for sales forecasting. 	
International Conference on Systems Engineering ICSEng 2021	<i>Poland</i>
Presenter for "Retail Sales Forecasting in the Presence of Promotional Periods"	<i>Dec 2021</i>
<ul style="list-style-type: none"> Presented forecasting models accounting for sales fluctuations due to promotional periods. 	

Selected Publications

Forecast Adjustments During Post-Promotional Periods	<i>2021</i>
<ul style="list-style-type: none"> Harsha Chamara Hewage, H Niles Perera, Shari De Baets European Journal of Operational Research https://doi.org/10.1016/j.ejor.2021.07.057 	
Enhancing Demand Forecasting in Retail: A Comprehensive Analysis of Sales Promotion Effects on the Entire Demand Life Cycle	<i>Accepted</i>
<ul style="list-style-type: none"> Harsha Chamara Hewage, H. Niles Pererab, Kasun Bandara Journal of Forecasting 	
A Novel Hybrid Approach to Contraceptive Demand Forecasting: Integrating Point Predictions with Probabilistic Distributions	<i>Under review</i>
<ul style="list-style-type: none"> Harsha Chamara Hewage, Bahman Rostami-Tabar, Aris Syntetos, Federico Liberatore International Journal of Production Research 	
A Hybrid Predictive and Prescriptive Modelling Framework for Long-term Mental Healthcare Workforce Planning	<i>Under review</i>
<ul style="list-style-type: none"> Harsha Chamara Hewage, Bahman Rostami-Tabar Journal of Service Research https://doi.org/10.48550/arXiv.2406.17463 	
Identifying the Supply Chain Risk Factors in Cinnamon Export Industry in Sri Lanka	<i>2021</i>
<ul style="list-style-type: none"> P.T.R.S. Sugathadasa, H. Niles Perera, Harsha Chamara Hewage, S.P.A.V.S. Samarakoon Sri Lankan Journal of Agriculture and Ecosystems DOI: 10.4038/sljae.v3i1.62 	

Professional Affiliations

Active	Student Member , The Operational Research Society (The OR Society) Credential ID: 11735	UK
Active	Student Member , International Institute of Forecasters Credential ID: 11735	USA
Active	Member (MILT) , The Chartered Institute of Logistics and Transport Credential: 51637	Sri Lanka
Active	Reviewer , The Operational Research Society (The OR Society)	UK
2023	Reviewer , R4TLI 2023: Research for Transport and Logistics Industry, Society of Transport and Logistics	Sri Lanka
2023	Reviewer , Moratuwa Engineering Research Conference 2023 (MERCon 2023, University of Moratuwa)	Sri Lanka

Organizations & Volunteering

Coordinator and Training Lead Cardiff, UK
Data Lab for Social Good, Cardiff Business School Sep 2023 – Present

- Organized training sessions for PhD students by identifying their needs; organized 5 sessions to date and co-developed a training on Introduction to Python.
- Coordinated overall activities of the group.

Research Network Lead Cardiff, UK
Forecasting for Social Good (F4SG), International Institute of Forecasters Dec 2021 – Present

- Found resource people to deliver free workshops on forecasting methodologies using R and Python; organized 10 sessions.
- Managed the LinkedIn page by designing flyers and content; handled the email account.

Student Representative, Year 2 Business Management PhD Cohort Cardiff, UK
Cardiff Business School Sep 2024 – Present

- Collecting student feedback and concerns from the cohort.
- Representing the cohort at student-staff meetings and advocating on their behalf.
- Sharing feedback and serving as a liaison between students and staff.

Mentor Cardiff, UK
Cardiff Business School Peer Mentoring Scheme Nov 2024 – Present

- Mentoring two first-year PhD students on academic and professional development, covering: time management, writing skills, publishing, networking, teaching, and career planning.
- Conducting quarterly meetings to provide guidance and monitor progress.

Student Volunteer – Organising Team Dijon, France
44th International Symposium on Forecasting, Dijon, France | International Institute of Forecasters Mar 2023 – Sep 2023

- Helped the organization team at the registration desk, managing the registration process of 450+ participants.

Co-organizer – Forecasting Stream Cardiff, UK
Annual Conference OR65, The Operational Research Society Mar 2023 – Sep 2023

- Helped organize the forecasting stream by creating social media flyers and reviewing the abstracts received.

President Moratuwa, Sri Lanka
Gavel Club of University of Moratuwa, Toastmasters International Feb 2019 – Jan 2020

- Managed and coordinated the club.
- Revised the constitution of the club introducing a new club structure where young students get more chances to get board positions.
- Coordinated sponsorships and finances of the club.
- Coordinated the wellbeing of the club members.

Skills & Expertise

Expertise	Time Series Forecasting, Data Science, Supply Chain Optimization, Business Strategy, Social Media Content Strategy
Programming	Python, R
Reporting	Quarto, Shiny, Power BI, Tableau
Creative Design	Adobe Illustrator, CorelDRAW, Microsoft PowerPoint
Languages	English (Fluent), Sinhala (Native)

References upon request