

Sujani Bhagya

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Summary

Food Science and Technology graduate with First Class Honours from the University of Peradeniya, currently reading for an MSc in Food and Nutrition. Possesses experience in undergraduate practical instruction, nutrition and public health research, laboratory work and scientific reporting.

Keen to contribute to teaching, student supervision, research, and academic activities in Food Chemistry and Food Analysis, Sensory Science and Evaluation, Post-Harvest Technology and Food Processing Technologies.

Education

M.Sc. in Food and Nutrition

July 2025 – Present

Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka

Reading

B.Sc. (Honours) in Food Science and Technology

Jan 2020 – Apr 2025

Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya, Sri Lanka

First Class Honours (FGPA 3.77/4.00) - Ranked 3rd

Academic and Professional Experience

Research Assistant

Nov 2025 – Present

Department of Nutrition, Medical Research Institute (MRI), Colombo 08, Sri Lanka

- Assist in laboratory and field research following standardized experimental protocols.
- Support biochemical and laboratory analyses in nutrition and public health studies.
- Maintain accurate laboratory documentation and research data management.
- Conduct literature reviews and assist in preparation of research reports and manuscripts.

Temporary Demonstrator (Teaching Assistant)

Apr 2025 – Oct 2025

Department of Food Science & Technology, Faculty of Agriculture, University of Peradeniya, Sri Lanka

- Coordinated practicals on *Food Product Development* (BFST undergraduates) and *Preservation of Agricultural Produce* (ATM undergraduates).
- Conducted practicals in *Food Analysis*, *Biochemistry*, and *Food Chemistry* for BFST undergraduates.
- Delivered laboratory sessions on *Basic Laboratory Skills*.
- Evaluated laboratory reports, quizzes, and assignments.

Internship Trainee

Jan 2023 – Feb 2023

SPR Packaging Industries, Palkelele, Sri Lanka

- Assisted in transport packaging, lamination, and flexographic printing operations.
- Supported quality control and packaging line activities.

Research Experience

Nutrition and Public Health Research - Medical Research Institute

Contributing to experimental procedures, laboratory analyses, data analysis, research documentation, and preparation of scientific reports

Assisting in ongoing studies on,

- Effectiveness study of locally produced ready-to-use therapeutic food (RUTF) for severe acute malnutrition.
- Impact assessment of fortified rice provision to schoolchildren aged 8–9 years.
- Evaluation of protein content of market-available textured soy protein products in Sri Lanka.

Smartphone-Based Health & Nutrition Self-Management App for Older Adults

2025

Contributed to the design and evaluation of a culturally adapted mobile health application for Sri Lankan senior citizens, supporting usability assessment and outcome evaluation.

PredictGL: AI-Driven Glycemic Load Prediction web application development

2024 – 2025

Developed a machine-learning-based predictive model for estimating glycemic load using nutritional composition data, involving data preprocessing, feature analysis, and model evaluation. Demonstrates application of data-driven modelling in food and nutrition systems.

Glycemic Index Evaluation of Sri Lankan Rice Varieties

2024

Assisted in a study evaluating the glycemic index of selected rice varieties, supporting experimental procedures and data interpretation.

Publications

G.S.K. Bhagya, N.K.B.L.M. Bandara, A.L.H.E. Perera, S.P. Wijesekara, A. Chandrasekara, and G.M. Somaratne. (2025). PredictGL: An AI-Driven Web Application for Glycemic Load Prediction Using Nutritional Composition Data. *Presented at the Peradeniya University International Research Symposium and Exposition 2025, Sri Lanka, 28–29 August 2025. (Conference Proceedings, Vol. 26, Page 204).* DOI: <https://doi.org/10.63967/AULT4918>.

S.P. Wijesekara, G.M. Somaratne, D.C.S. Gunasekara, A. Chandrasekara, **G.S.K. Bhagya**, and D.S.D.Z. Abey Siriwardena. (2025). In Vivo Glycaemic Response to Selected Commonly Consumed Sri Lankan Rice-Based Foods Prepared Using Three Long-Grain Rice Varieties. *Presented at the Peradeniya University International Research Symposium and Exposition 2025, Sri Lanka, 28–29 August 2025. (Conference Proceedings, Vol. 26, Page 162).* DOI: <https://doi.org/10.63967/AULT4918>.

N.K.B.L.M. Bandara, **G.S.K. Bhagya**, A.L.H.E. Perera, G.M. Somaratne, and A. Chandrasekara. (2025). Development of a Multilayer Perceptron Architecture to Improve Glycemic Load Estimation from Nutritional Features Over Traditional Machine Learning Models. In *Proceedings of BIIRC 2025: 3rd Business and ICT International Research Conference*, Vol. 01, No. 03, pp. 182–186. ISSN: 3093-5962.

Projects

New Food Product Development

2024

Team Member – University Group Project (3rd Year)

Collaborated on developing two innovative functional food products: *Instant Herbal Porridge Paste* and *Nutri Plus Snack Bar*, using herbal and nutrient-dense ingredients targeting health-promoting dietary applications.

Study on Quality and Safety Assessment of Processed Food Products

2024

Team Member – University Group Project (3rd Year)

Evaluated quality and food safety aspects of processed black pepper products.

collaborated with the team to analyze findings and derive evidence-based conclusions.

Study on Processing Potential of an Agricultural Commodity

2023

Team Member – University Group Project (2nd Year)

Assessed processing and value-addition potential of cardamom using information from multiple local sources. Identified feasible processing opportunities and key constraints affecting production, processing, and marketing.

Awards and Achievements

Best Paper Award

2025

“Development of a Multilayer Perceptron Architecture to Improve Glycemic Load Estimation from Nutritional Features Over Traditional Machine Learning Models,” presented at the 3rd Business and ICT International Research Conference (BIIRC) 2025.

University Prize for Academic Excellence

2025

Final Examination in Bachelor of Science Honours in Food Science and Technology
University of Peradeniya, Sri Lanka.

Member of the Winning Team

2023

Inter-University Quiz Competition conducted by the Institute of Food Science and Technology, Sri Lanka.

Volunteering Experience

Workshop on Diabetes Prevention and Dietary Management

Mar 2025

Women’s Development Center, Mulgampola, Kandy

Organized a community awareness program promoting diabetes prevention and healthy dietary practices, linked to my AI-driven glycemic load research.

Internship (GreenTern)

2023

Centre for Environmental Sustainability, University of Peradeniya

Contributed to sustainability initiatives and participated in the “Hanthana Reforestation” program.

Project Co-chair – We Lead Career Skills Society

2023

University of Peradeniya

Organized the “MindScape” event, raising awareness on student mental well-being.

Active Member – Society of Food Science and Technology (SFST)

2020–2024

University of Peradeniya

Contributed to article writing, social-media outreach, and student research initiatives such as “Research Recaps.” Served as Committee Member (2023–2024).

Skills

Laboratory & Research Skills

Food analysis and biochemical laboratory techniques; laboratory safety procedures; sample preparation and experimental protocol implementation; food preservation techniques.

Data & Research Tools

SPSS; Minitab; Microsoft Office Suite.

Scientific Communication

Academic writing; research presentation and reporting.

Certificates

Certificate Course in English Language – Vision Institute of Information Technology

Memberships

- **Student Member – Institute of Food Technologists (IFT)**

Membership ID: 01267148

Referees

Dr. Geeshani Somaratne

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Dr. Rsanjali Samarakoon

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