

Sandun Malpriya Silva
Research Fellow
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Biography

Dr. S. Sandun Malpriya Silva is a statistician specialized in biostatistics and data science. He is currently working as a research fellow at Australian Institute of Health Innovation (AIHI). He has worked as a biostatistician at National Health Medical Research Council (NHMRC) Clinical Trial Center, University of Sydney, prior joining to AIHI.

He has completed his bachelor's in Statistics at University of Colombo, Sri Lanka. After a year of working as a data analyst/scientist in Sri Lanka, he was offered a full scholarship from Department of Health Science and Biostatistics at Swinburne University of Technology Australia to follow a PhD in Statistics (STA90001) in the scope of Health Science (DR-HTHSCI).

His PhD project was named as "Innovative Statistical Methods to Model and Evaluate Physical Activity Programs Engagement", which comprises statistical and machine learning models to model mHealth physical activity programs. This PhD project was done in collaboration with a US based world leading wellbeing program which is known as "Virgin Pulse Global Challenge". The findings of the PhD were well published in leading academic journals and international conferences.

During his PhD, he has also consulted over 1000 students in advanced statistical modelling, time series analysis, machine learning, business forecasting and predictive analytics at three ranking universities namely Monash University, Melbourne University (MBS) and Swinburne University of Technology, with an overall rating of 4.7 out of 5.

He has also worked with Department of Transport, Victoria and Peter MacCallum Cancer Research Centre, Melbourne on various studies to solve real world problems. The findings of these studies have been published in leading academic journals.

He enjoys working on real world health problems using data and statistics.

Qualifications

Statistics, PhD, Innovative Statistical Methods to Model and Evaluate Physical Activity Programs Engagement, Swinburne University of Technology,
Award Date: 21 Jan 2021

Statistics, BSc, University of Colombo
Award Date: 1 Jan 2016

Employment

Research Fellow

Research Fellow
Australian Institute of Health Innovation
Macquarie University
20 Dec 2021 → present

Biostatistician

NHMRC Clinical Trials Centre, University of Sydney, NSW, Australia
11 Dec 2020 → 17 Dec 2021

Teaching associate

Melbourne Business Sch
Melbourne, Australia
1 Jan 2019 → 1 Jan 2019

Teaching associate

Monash University
Clayton, Australia
1 Jan 2018 → 1 Jan 2020

Teaching associate and a quantitative researcher

Swinburne University of Technology

Hawthorn, Australia

1 Jan 2017 → 1 Jan 2020

Research outputs

Changing impact of COVID-19 on life expectancy 2019–2023 and its decomposition: findings from 27 countries

Huang, G., Guo, F., Liu, L., Taksa, L., Cheng, Z., Tani, M., Zimmermann, K. F., Franklin, M. & Silva, S. S. M., Mar 2024, In: SSM - Population Health. 25, p. 1-10 10 p., 101568.

Effectiveness of fall prevention interventions in residential aged care and community settings: an umbrella review

Meulenbroeks, I., Mercado, C., Gates, P., Nguyen, A., Seaman, K., Wabe, N., Silva, S. M., Zheng, W. Y., Debono, D. & Westbrook, J., 19 Jan 2024, In: BMC Geriatrics. 24, 1, p. 1-13 13 p., 75.

Innovative approaches to analysing aged care falls incident data: International Classification for Patient Safety and correspondence analysis

Seaman, K., Meulenbroeks, I., Nguyen, A., Silva, S., Wabe, N., Huang, G., Hibert, P., Paudel, P. & Westbrook, J., 25 Oct 2023, In: International Journal for Quality in Health Care. 35, 4, p. 1-16 16 p., mzad080.

Improving efficiency of fitting Cox proportional hazards models for time-to-event outcomes in genome-wide association studies (GWAS)

Gebbski, V., Silva, S. S. M., Byth, K., Jenkins, A. & Keech, A., 13 Oct 2023, (E-pub ahead of print) In: Bioinformatics Advances. 3, 1, 12 p., vbad148.

Dynamic health status monitoring using aged care quality indicators for better care: an innovative approach using mixture hidden Markov models

Silva, S. S. M., Wabe, N. & Westbrook, J. I., 9 Jul 2023, p. 873. 1 p.

Effectiveness of a new service delivery model for management of knee osteoarthritis in primary care: a cluster randomised controlled trial

Hunter, D. J., Bowden, J. L., Hinman, R. S., Egerton, T., Briggs, A. M., Bunker, S. J., French, S. D., Pirotta, M., Shrestha, R., Schofield, D. J., Schuck, K., Zwar, N. A., Silva, S. S. M., Heller, G. Z., Bennell, K. L. & PARTNER Study Team, Jun 2023, In: Arthritis Care and Research. 75, 6, p. 1320-1332 13 p.

The relationship between fall incidents and place of birth in residential aged care facilities: a retrospective longitudinal cohort study

Huang, G., Wabe, N., Raban, M. Z., Seaman, K. L., Silva, S. M. & Westbrook, J. I., 28 Apr 2023, In: BMC Geriatrics. 23, 1, p. 1-11 11 p., 257.

Optimising management of knee osteoarthritis in primary care (Partner): a cluster randomised controlled trial

Bowden, J. L., Hunter, D. J., Hinman, R. S., Egerton, T., Briggs, A. M., Bunker, S. J., French, S. D., Pirotta, M., Shrestha, R., Schofield, D. J., Schuck, K., Zwar, N. A., Silva, S. M., Heller, G. Z. & Bennell, K. L., Mar 2023, In: Osteoarthritis and Cartilage. 31, Supplement 1, p. S29-S30 2 p.

Modelling the relationship of driver license and offense history with fatal and serious injury (FSI) crash involvement

Meyer, D., Muir, S., Silva, S. S. M., Slikboer, R., McIntyre, A., Imberger, K. & Pyta, V., Dec 2021, In: Journal of Safety Research. 79, p. 83-93 11 p.

Risk factors associated with suicide in adolescents and young adults (AYA) with cancer

Heynemann, S., Thompson, K., Moncur, D., Silva, S., Jayawardana, M. & Lewin, J., 29 Oct 2021, In: Cancer Medicine. 10, 20, p. 7339-7346 8 p.

Videoconferencing psychotherapy for couples and families: a systematic review

de Boer, K., Muir, S. D., Silva, S. S. M., Nedeljkovic, M., Seabrook, E., Thomas, N. & Meyer, D., Apr 2021, In: Journal of Marital and Family Therapy. 47, 2, p. 259-288 30 p.

A systematic review of statistical models and outcomes of predicting fatal and serious injury crashes from driver crash and offense history data

Slikboer, R., Muir, S. D., Silva, S. S. M. & Meyer, D., 28 Sept 2020, In: Systematic Reviews. 9, p. 1-15 15 p., 220.

Detecting possible persons of interest in a physical activity program using step entries: including a web-based application for outlier detection and decision-making

Silva, S. S. M., Meyer, D. & Jayawardana, M., 9 Mar 2020, In: Biometrical Journal. 62, 2, p. 414-427 14 p.

Predictors of success of workplace physical activity interventions: a systematic review

Muir, S. D., Silva, S. S. M., Woldegiorgis, M. A., Rider, H., Meyer, D. & Jayawardana, M. W., 1 Aug 2019, In: Journal of Physical Activity and Health. 16, 8, p. 647-656 10 p.

Statistical methods to model and evaluate physical activity programs, using step counts: a systematic review

Silva, S. S. M., Jayawardana, M. W. & Meyer, D., 2 Nov 2018, In: PLoS ONE. 13, 11, p. 1-19 19 p., e0206763.

Impact of day of the week effect on All Share Price Index (ASPI) and a comparison of forecastability of GARCH and NARX models

Silva, S. S. M., Tilakaratne, C. D. & Munasinghe, R., 2017, *16th International Conference on Advances in ICT for Emerging Regions: ICTer 2016 - Conference Proceedings*. United States: Institute of Electrical and Electronics Engineers (IEEE), p. 311-320 10 p.