Supun Vidura Lakshan Welgamage

Date of birth: 21/04/1995 | **Nationality:** Sri Lankan | **Gender:** Male | **Phone number:** (+44) 7375384683 (Mobile) |

Email address: supun.vidura.lakshan@gmail.com | **Address:** Perth, United Kingdom (Home)

ABOUT ME

Highly skilled and motivated Data Scientist with a strong background in analysing complex data sets and developing innovative solutions. Proficient in statistical analysis, machine learning, and data visualization techniques. Seeking a challenging position where I can utilize my expertise to drive data-driven decision-making and contribute to the success of the organization.

WORK EXPERIENCE

01/03/2022 – 08/01/2023 Kelaniya, Sri Lanka
ASSISTANT LECTURER UNIVERSITY OF KELANIYA

• Conducting lectures and Research work related to computer science.
• Delivered seminars, tutorials, workshops, and other small group learning activities to support undergraduates
• Provided guidance and support to students for final-year Research projects to facilitate academic excellence.
• Tracked student assignments, attendance, and test scores and entered them into an online database to provide real-time progress monitoring.
• Worked with graduate students and teaching assistants on the development of classroom material and teaching practicums.

17/05/2021 – 28/02/2022 Kelaniya, Sri Lanka
UNIVERSITY TEACHING ASSISTANT UNIVERSITY OF KELANIYA

Conducting lectures and Research work related to computer science.

09/03/2020 – 08/09/2020 Colombo, Sri Lanka
ASSOCIATE SOFTWARE ENGINEER LOLC TECHNOLOGIES

• Developed and implemented neural network models to predict the credit score of a person.
• Conducted statistical analysis to find best factors to model development.
• Development of REST API
• Deployment of Machine Learning models in cloud platforms

EDUCATION AND TRAINING

09/01/2023 – 26/04/2024 Dundee, United Kingdom
MASTERS IN DATA SCIENCE AND ENGINEERING University of Dundee

Website https://www.dundee.ac.uk/

08/04/2017 – 01/04/2021 Kelaniya, Sri Lanka
BACHELOR OF SCIENCE HONORS IN COMPUTER SCIENCE University of Kelaniya

Website https://www.ckln.ac.lk/index.php | **Field of study** Computer Science | **Final grade** Second Upper (GPA 3.62)

PUBLICATIONS

2021
An enhanced ensemble model for crime occurrence prediction using machine learning

Lakshan, W.S.V., Silva, A.T.P. & Weerakoon, W.A.C. (October 2021). 'An enhanced ensemble model for crime occurrence prediction using machine learning', International Conference on Applied and Pure Sciences(2021), University of Kelaniya, Sri Lanka, vol. 1, pp. 191 – 196, ISSN 2815-0112

2022

[Estimation of sex from the osteometric measurements of the femur in a contemporary Sri Lankan population](#)

Ranaweera, L., Cabral,e D.M.P.V. Dissanayake & W.S.V. Lakshan (2022). 'Estimation of sex from the osteometric measurements of the femur in a contemporary Sri Lankan population', International Journal of Morphology, vol. 40(4), pp. 1009 – 1017

2022

[Comparison between the Machine Learning Algorithms to determine the suitable input features for personal theft, sexual assault, and house burglary victimization prediction](#)

Lakshan, W.S.V. & Weerakoon, W.A.C. (2022). 'Comparison between the Machine Learning Algorithms to determine the suitable input features for personal theft, sexual assault, and house burglary victimization prediction', Proceedings of the International Conference on Applied and Pure Sciences (ICAPS 2021- Kelaniya) Faculty of Science, University of Kelaniya Sri Lanka. vol. 2, page 54

2022

[An efficient credit score prediction model with Deep Neural Network](#)

Lakshan W.S.V. & Katugampala K. D. V. C. (2022). 'An efficient credit score prediction model with Deep Neural Network', Proceedings of the International Conference on Applied and Pure Sciences (ICAPS 2021- Kelaniya) Faculty of Science, University of Kelaniya Sri Lanka. vol. 2, page 46.

2023

[Identifying Key Aspects of How People Experience Co-creative System: In Reference to Weavesilk Application](#)

Lakshan, W.S.V. and Katugampala, K.D.V.C., 2023, November. Identifying Key Aspects of How People Experience Co-creative System: In Reference to Weavesilk Application. In 2023 7th SLAAI International Conference on Artificial Intelligence (SLAAI-ICAI) (pp. 1-6). IEEE

HONOURS AND AWARDS

Deans List – University of Kelaniya

High Academic Performance - Deans List 2020

Deans List – University of Kelaniya

High Academic Performance - Deans List 2020.

2nd Place for the Group – IEEE Student Challenge 2022

ConvAuther – A Conversational AI for Multifactor Authentication' system in IEEE Student Challenge 2022, Spain.

MANAGEMENT AND LEADERSHIP SKILLS

President

Elected to President for Statistics and Computer Science Student Association in 2019

Link https://scssa.netlify.app/

PROJECTS

Myflix - Netflix Clone

DevOps Module – Masters Project
Technologies: CI/CD, React, Node.js, MongoDB, Docker, Jenkins, AWS
Developed "MyFlix," a full-stack Netflix clone, as part of my DevOps coursework. The frontend was built using **React**, while the backend used **Node.js** and **MongoDB** for database management. Implemented **Docker** for containerization, ensuring consistency across development, testing, and production environments. Set up a **CI/CD pipeline with Jenkins** to automate code integration, testing, and deployment, streamlining the development workflow. Utilized **AWS** for hosting and scaling, highlighting infrastructure management, cloud deployment, and automated monitoring for a robust, scalable application.

Soil Quality Evaluation using machine vision

Collaboration with James Hutton Institute and University of Dundee
For my master's project, I developed a machine vision-based system for evaluating soil quality, in collaboration with the James Hutton Institute and the University of Dundee. The project used **Python** and relevant machine learning libraries, including **OpenCV** for image processing and **scikit-learn** for implementing classification models. I employed **Convolutional Neural Networks (CNNs)** to analyze soil images and extract features related to soil texture, color, and structure. The model was trained on a dataset of soil samples, allowing it to accurately classify soil types and assess quality indicators. This automated approach provided a scalable, cost-effective alternative to traditional soil testing, contributing to advancements in sustainable agriculture and environmental resource management.

Air Ticket Booking System

Technologies: PHP, JavaScript, HTML, CSS, Bootstrap

Developed a fully functional **Air Ticket Booking System** that allows users to search for flights, book tickets, and manage reservations. The frontend was designed using **HTML**, **CSS**, and **Bootstrap** to ensure a responsive and user-friendly interface across various devices. The backend was built using **PHP**, handling server-side logic, including flight search, booking confirmation, and payment processing. **JavaScript** was integrated to add interactive features such as dynamic form validation and real-time flight availability updates. The system ensures smooth user interaction and efficient booking processes with a focus on usability and performance.

DIGITAL SKILLS

Microsft ofice ┃ programming: Python, MATLAB and SQL ┃ R statistics, Pyton ┃ Databases: MySQL, MariaDB, PostgreSQL, MongoDB ┃ BI tools and applications (Amazon AWS) ┃ Tools & Framework: Git, Jenkins, AWS, Bitbucket, Jmeter, Rest Assured, Postman, Shell ┃ Programming with Python, Node js, Ruby, Bash, React, Js ┃ Web technologies: J2EE, RESTful Services, HTTP, SOAP ┃ Javascript(Nodejs, ExpressJs) ┃ Programming Languages - C,C++,Java,HTML and MS SQL server ┃ Devops: Docker, Jenkins ┃ Machine Lerarning ┃ Computer VIsion ┃ • Statistical Analysis using Microsoft Excel, SPSS, and Minitab software ┃ Research Methods ┃ Visual Studio - Visual Basic.NET ┃ Power Query ,Power BI

Supun Vidura Lakshan Welgamage
Perth, United Kingdom
supun.vidura.lakshan@gmail.com
05/02/2025

Dr. Khiet Truong & Prof. Dr. Dirk Heylen
Human Media Interaction Group
Faculty of Electrical Engineering, Mathematics & Computer Science
University of Twente

Application for PhD Position in Smiled Speech Analysis

Dear Dr. Truong and Prof. Heylen,

I am writing to express my strong interest in the advertised PhD position focusing on the detection, quantification, and perception of smiled speech at the University of Twente. My background in Computer Science, Data Science, and Machine Learning has equipped me with the technical expertise required for this research, and I am eager to contribute to the interdisciplinary study of speech perception and human-computer interaction. This project aligns perfectly with my interests in multimodal data processing, human-technology interaction, and AI-driven analysis, and I am excited by the prospect of working in the Human Media Interaction group.

I recently completed my Master's in Data Science and Engineering at the University of Dundee, where I focused on machine learning, deep learning, and statistical analysis. My master's research involved developing a machine vision-based soil quality evaluation system in collaboration with the James Hutton Institute. This project required feature extraction from complex datasets, deep learning-based classification (CNNs), and multimodal data processing, which are fundamental techniques that can be applied to speech signal analysis. Through this experience, I gained valuable expertise in designing and evaluating AI-based models for real-world applications, demonstrating my ability to adapt and apply computational methods across domains.

Before my MSc, I earned a Bachelor of Science (Hons) in Computer Science from the University of Kelaniya, where I graduated with a Second Upper-Class Honours (GPA: 3.62). During my undergraduate studies, I developed a strong foundation in machine learning, programming, and statistical modeling, which I later applied in both academic research and industry. My research has been published in peer-reviewed conferences and journals, including studies on crime prediction using machine learning, credit score prediction using deep neural networks, and co-creative AI systems. These experiences have reinforced my passion for applying computational techniques to understand and improve human interactions, which is why I am particularly excited about this PhD opportunity.

In addition to my research background, I have experience as an Assistant Lecturer at the University of Kelaniya, where I conducted lectures, tutorials, and research mentoring for undergraduate students in Computer Science. This role strengthened my ability to communicate complex technical concepts effectively and collaborate on research projects, skills that are crucial for a PhD researcher. Furthermore, my experience in software development and AI applications, including my work as an Associate Software Engineer at

LOLC Technologies, has provided me with practical knowledge of implementing AI-driven solutions in industry settings.

While I do not have direct experience in speech and audio processing, I believe that my expertise in machine learning, feature extraction, and multimodal data analysis will allow me to transition into this field effectively. My ability to work with diverse datasets—from computer vision tasks to structured data analysis—demonstrates my adaptability and willingness to learn new methodologies. I have already started familiarizing myself with speech analysis techniques and relevant tools such as librosa for audio feature extraction and deep learning models for speech classification. Given my strong analytical mindset and ability to grasp new concepts quickly, I am confident in my ability to contribute meaningfully to this research.

Beyond the technical aspects, I am particularly drawn to this project because of its emphasis on social perception and human-computer interaction. Understanding how smiling influences speech perception and impression formation is a fascinating challenge that combines linguistics, psychology, and AI, and I am eager to explore how computational methods can be used to analyze these social cues. I am also excited by the opportunity to collaborate with experts across different disciplines, particularly during the planned secondments at Audeering (Germany) and Maastricht University, as I thrive in interdisciplinary research environments.

At the University of Twente, I am eager to join the Human Media Interaction group, which has a strong reputation for advancing research in multimodal interaction, conversational agents, and natural language processing. I believe that my background in AI, deep learning, and human-technology interaction, combined with my strong motivation to learn and contribute, makes me a suitable candidate for this position. The prospect of working in an international and interdisciplinary research setting excites me, and I look forward to the opportunity to develop new skills and make meaningful contributions to the field.

I would welcome the opportunity to discuss my application further and demonstrate how my skills and experiences align with this research. Please find my CV attached for your review. Thank you for your time and consideration. I look forward to your response.

Best regards,

Welgamage Supun Vidura Lakshan

WHITMAN COLLEGE

Dr. Sachintha Pitigala,
Visiting Assistant Professor of Computer Science,
Department of Computer Science,
Whitman College,
Walla Walla, WA.

December 20th, 2024

To Whom It May Concern:

I am writing to recommend Mr. Supun Vidura Lakshan Welgamage for admission to a postgraduate program at your university.

Mr. Supun earned his Bachelor of Science Honours degree from the University of Kelaniya, Sri Lanka, achieving an impressive GPA of 3.62/4.00. This four-year program, conducted entirely in English, included the successful completion of 124 credits. Following this, he pursued and completed a Master's in Data Science and Engineering at the University of Dundee, UK.

From the beginning of his undergraduate studies, Mr. Supun exhibited a strong passion for computer science, consistently excelling in his coursework at the University of Kelaniya. He further established himself as a promising researcher in the computing field by publishing five research abstracts and articles in well-regarded journals and conferences. His academic excellence was recognized when he was named a Dean's List student at the Faculty of Science, University of Kelaniya. Additionally, he demonstrated practical expertise by contributing to significant industry projects during his internship, one of which earned 2nd place in the IEEE Student Challenge 2022, held in Spain.

Beyond his academic and research achievements, Mr. Supun has exhibited outstanding leadership and communication skills. As President of the Statistics and Computer Science Students' Association at the University of Kelaniya, he successfully led numerous academic initiatives and community development projects.

I have known Mr. Supun for over six years in various capacities: as a student, researcher, and colleague. After his graduation, he joined the department as a Graduate Teaching Assistant and was later promoted to Assistant Lecturer. In these roles, he consistently exceeded expectations, completing assigned tasks with remarkable dedication and professionalism. Throughout his academic journey and professional tenure, Mr. Supun has demonstrated exceptional commitment, perseverance, and the ability to work collaboratively.

It is with great confidence that I recommend Mr. Supun for your graduate program. His academic rigor, research capabilities, leadership qualities, and dedication make him an excellent candidate who will undoubtedly contribute significantly to your institution.

WHITMAN COLLEGE

If you need any additional information, please feel free to contact me.

This letter has been provided at his request.

Thank you for your time and consideration.

Yours sincerely,

Dr. Sachintha Pitigala,
BSc (Colombo, Sri Lanka),
MSc (MTSU, USA), PhD (MTSU, USA).
Email: pitigals@whitman.edu

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Your No.

Dr. (Mrs) Anuradha P. Hewaarachchi
Senior Lecturer
Department of Statistics & Computer Science
University of Kelaniya
Sri Lanka

06/06/2024

To whom it may concern

Referee Report- Mr. Supun. V. L. Welgamage

I am writing this reference at the request of **Mr. Supun Vidura Lakshan Welgamage**, who is applying for the Ph.D. in Systems Science. I have known him since the beginning of 2017, when he joined as an undergraduate at the University of Kelaniya. Mr. Welgamage studied STAT 11514 (Fundamentals of Statistics), and he obtained an excellent grade due to his diligence and dedication.

Mr. Welgamage bears an excellent academic record. He completed his undergraduate degree with a Second-class honors (Upper division) major in computer science. After completing his bachelor's degree, he was recruited as a demonstrator for the Department of Statistics and Computer Science of the University of Kelaniya. Due to his outstanding performance, he was later promoted to an Assistant Lecturer, responsible for Computer Science course modules.

Mr. Welgamage is known to me personally as an outstanding leader and a team worker with the qualities of patience and the ability to lift spirits with his excellent soft skills. He was the president of the Department of Statistics & Computer Science Student Association for the year 2018/2019. He led several events in our department, including the Curriculum Revision Workshop and Promotional Campaigns for the Postgraduate programs. Due to his managerial and organizational skills, the events were a great success.

Mr. Welgamage is a well-disciplined, diligent person with a pleasant personality. He can be entrusted with any responsibility that demands dedication, courage, and innovation.

Further, he has completed a Masters in Data Science and Engineering with merit. I strongly recommend Mr. Welgamage to your program with absolute confidence. He will be an excellent candidate for the Ph.D. programme. It is my sincere that you will accept his admission to the University.

Thanking you,

Dr. (Mrs) Anuradha P. Hewaarachchi
Senior Lecturer
University of Kelaniya
Tel: +94 112903379/ +94 743306976
Email: anuradhah@kln.ac.lk