



## Lakitha Omal Harindha Wijeratne

📍 2200 Waterview Pkwy Apt 2316 Richardson TX 75080

☎ +1 972 400 3057

✉ lakithaomal@gmail.com

🌐 <https://www.linkedin.com/in/lakitha-wijeratne/>

Born 10 May 1989

**Research scientist experienced in development and deployment of sensor systems to study and model air pollution. Performs daily experiments to calibrate such sensor systems using big data and machine learning algorithms.**

### WORK EXPERIENCE

---

May 2018 – May 2021

#### Research Assistant

University of Texas at Dallas

- Conducted atmospheric physics research using machine learning

August 2015 – May 2018

#### Teaching Assistant

University of Texas at Dallas

- Provided laboratory instruction to undergraduate students.

### EDUCATION

---

2015– 2021

#### Doctoral degree in Physics

Department of Physics, University of Texas at Dallas

- Graduate Research in Atmospheric Physics research using Machine Learning  
Dissertation: Coupling Physical Measurement with Machine Learning for Holistic Environmental Sensing  
Adviser - Prof. David Lary
- GPA: 4.0

2015– 2017

#### Master's degree in Physics

Department of Physics, University of Texas at Dallas

- GPA: 4.0

2009 – 2013

#### Bachelors's degree Computational Physics

Department of Physics, University of Colombo, Sri Lanka

- Undergraduate Research in Physics and Machine Vision  
Dissertation: 3D Reconstruction of Long Laboratory Sparks  
Adviser - Prof. Upul Sonnadara
- Graduated with Special Honors

### TECHNICAL SKILLS

---

Programming Languages Proficient in Python, Matlab and C++

Other skills 3D design skills and CAD knowledge

### PUBLICATIONS

---

- 1 Wijeratne, L.O., D.R. Kiv, A.R. Aker, S. Talebi, and D.J. Lary (2020). Using machine learning for the calibration of airborne particulate sensors. *Sensors* 20(1), 99.
- 2 Lary, D. J., D. Schaefer, J. Waczak, A. Aker, A. Barbosa, L. O. Wijeratne, S. Talebi, B. Fernando, J. Sadler, T. Lary, et al. (2021). Autonomous learning of new environments with a robotic team employing hyper-spectral remote sensing, comprehensive in-situ sensing and machine learning. *Sensors* 21(6), 2240.
- 3 Liu, X., D. Wu, G. K. Zewdie, L. Wijeratne, C. I. Timms, A. Riley, E. Levetin, and D. J. Lary(2017). Using machine learning to estimate atmospheric ambrosia pollen concentrations intulsa, ok. *Environmental health insights* 11, 1178630217699399

- 4 Talebi, S., D. J. Lary, L. O. Wijeratne, and T. Lary (2019). Modeling autonomic pupillary responses from external stimuli using machine learning. *Biomedical Journal of Scientific Technical Research* 20(3), 14999–15009.

## REFERENCES

---

**David Lary** Professor  
Department of Physics  
University of Texas at Dallas  
800 W Campbell Rd  
Richardson TX 75080  
david.lary@utdallas.edu  
+1 (972) 883-5643

**Paul Mac Alevey** Professor of Instruction  
Department of Physics  
University of Texas at Dallas  
800 W Campbell Rd  
Richardson TX 75080  
paulmac@utdallas.edu  
+1 (972) 883-4634

**Robert Glosser** Professor and Program Head  
Department of Physics  
University of Texas at Dallas  
800 W Campbell Rd  
Richardson TX 75080  
robert.glosser@utdallas.edu  
+1 (972) 883-2876