

# Shawhin Talebi

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## EDUCATION

**The University of Texas at Dallas**

*PhD, Physics*

*Anticipated May 2022*

**GPA 3.77**

**The University of Texas at Dallas**

*M.S., Physics*

*December 2019*

**GPA 3.82**

**The University of Texas at Dallas**

*B.S., Physics*

*May 2017*

**GPA 3.52**

## TECHNICAL SKILLS

**Tools:** Python, MATLAB, SQL, Excel, Keynote, bash/zsh, GitHub

**Certifications:** Data Structure & Algorithms (Udemy), Tableau (Udemy)

## WORK EXPERIENCE

**Research Assistant**

**December 2018 - Present**

*The University of Texas at Dallas (Department of Physics) - Richardson, Texas*

- Orchestrated multiple team projects focused on deployment of a real time **Python** based biometrics application, unveiling immediate insights that were previously inaccessible
- Developed empirical machine learning model to predict pupil size from full spectrum of visible light using **MATLAB**, which lead to first author publication and outperformed all previous studies
- Presented research at university poster competition, which resulted in 3rd place award

**Business/IT Manager**

**May 2017 - December 2018**

*Palomino Motors - Dallas, Texas*

- Analyzed marketing and sales reports to inform inventory acquisition, which resulted in a 50% decrease in average inventory age
- Evaluated costs of lead providers through close rate analysis, which led to over \$2500 in monthly savings

## TALKS & OUTREACH

**Guest Lecture: Dimensionality Reduction - Big Data and Machine Learning for Scientific Discovery (PHYS 5336), Spring 2021**

**Guest Lecture: Fourier and Wavelet Transforms - Scientific Computing (PHYS 5315), Fall 2020**

**A Brief Introduction to Optimization - GSP Seminar, Fall 2019**

**Mad Scientist Series - The Heights Church, Fall 2019**

**Weeks of Welcome Poster Competition - UTD, Fall 2019**

**A Brief Introduction to Networks - GSP Seminar, Spring 2019**

**Modeling Autonomic Pupillary Responses from External Stimuli Using Machine Learning - GSP Seminar, Spring 2019**

## PUBLICATIONS

- Talebi S.**, Lary D.J., Wijeratne L. OH., and Lary, T. Modeling Autonomic Pupillary Responses from External Stimuli Using Machine Learning (2019). DOI: [10.26717/BJSTR.2019.20.003446](https://doi.org/10.26717/BJSTR.2019.20.003446)
- Wijeratne, L.O.; Kiv, D.R.; Aker, A.R.; **Talebi, S.**; Lary, D.J. Using Machine Learning for the Calibration of Airborne Particulate Sensors. *Sensors* 2020, 20, 99.
- Lary, D.J.; Schaefer, D.; Waczak, J.; Aker, A.; Barbosa, A.; Wijeratne, L.O.; Talebi, S.; Fernando, B.; Sadler, J.; Lary, T.; Lary, M.D. Autonomous Learning of New Environments With a Robotic Team Employing Hyper-Spectral Remote Sensing, Comprehensive In-Situ Sensing and Machine Learning. Preprints 2021, 2021020454 (doi: 10.20944/preprints202102.0454.v1).

## AWARDS AND HONORS

**2<sup>nd</sup> Annual Weeks of Welcome Poster Competition – 3<sup>rd</sup> Place Winner**

*August 2019*

**Outstanding Undergraduate Student – Nominee**

*April 2017*

**Student Leader of the Year – Nominee**

*April 2017*