Shawhin Talebi

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EDUCATION

The University of Texas at Dallas	*Anticipated May 2022*
PhD, Physics	**GPA 3.77**
The University of Texas at Dallas	December 2019
M.S., Physics	**GPA 3.82**
The University of Texas at Dallas	May 2017
B.S., Physics	**GPA 3.52**

TECHNICAL SKILLS

Tools: Python, MATLAB, Julia, Tableau, SQL, Excel, GitHub
Certifications: Data Structure & Algorithms (Udemy), Tableau (Udemy)

WORK EXPERIENCE

Freelance Data Scientist   **December 2020 - Present**
Shawhin Talebi Ventures LLC - Plano, Texas
- Conducted data collection, processing, and analysis for novel study evaluating the impact of over 300 biometrics variables on human performance in hyper-realistic, live-fire training scenarios
- Combined machine learning with qEEG to perform clinical diagnosis of neurological diseases

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 led 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 analysis of lead data and close rates, which led to over $2500 in monthly savings
- Revamped company website, online vehicle listings, and social media sites to increase web traffic

TALKS & OUTREACH

Causality: The new science of an old question - *GSP Seminar, Fall 2021*
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

1. **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
2. 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.
3. Lary, D.J.; Schaefer, D.; Waczak, J.; Aker, A.; Barbosa, A.; Wijeratne, L.O.H.; **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. *Sensors* **2021**, *21*, 2240. https://doi.org/10.3390/s21062240
4. Zhang, Y.; Wijeratne, L.O.H.; **Talebi, S**.; Lary, D.J. Machine Learning for Light Sensor Calibration. *Sensors* **2021**, *21*, 6259. https://doi.org/10.3390/s21186259

AWARDS AND HONORS

2021 Friends of BrainHealth Visionary New Scientist Award — Finalist   September 2021

2nd Annual Weeks of Welcome Poster Competition – 3rd Place Winner   August 2019

Outstanding Undergraduate Student – Nominee   April 2017

Student Leader of the Year – Nominee   April 2017