Sloke Shrestha - CV

Email: sshrestha7@patriots.uttyler.edu
GitHub: https://github.com/slokeshrestha26
Webpage: slokeshrestha26.github.io

EDUCATION

Bachelor of Science in Electrical Engineering (B.S.E.E). **2018 – 2022**
Minor in Mathematics **(anticipated)**
The University of Texas at Tyler
Major GPA: 4.0/4.0
Cumulative GPA: 3.94/4.0

RESEARCH INTERESTS

Human Computer Interaction, Health Monitoring, Ubiquitous Computing

PUBLICATIONS

[1] Carreiro S, Taylor M, **Shrestha S**, Reinhardt M, Gilbertson N, Indic P. Realize, Analyze, Engage (RAE): A digital tool to support recovery from substance use disorder. *J Psychiatry Brain Sci*. 2021

[2] Carreiro S, Chintha KK, **Shrestha S**, Chapman B, Smelson D, Indic P. Wearable sensor-based detection of stress and craving in patients during treatment for substance use disorder: A mixed methods pilot study. *Drug and Alcohol Dependence*. 2020, 107929

IN PREPARATION

[3] **Shrestha S**, Taylor M, Chaudary S, Leach R, Carreiro S, Indic P. Detection of craving and stress in patients with substance use disorder using wearable sensor data using Machine Learning

[4] VNSA Amperayani, **Shrestha S**, Colm T, Ambalavanan N, Indic P. Machine Learning Algorithms for the Prediction of Bradycardia Risk in Preterm Infants

RESEARCH EXPERIENCE

Visiting Student **Summer 2021 – December 2021**
EECS, CSAIL, Massachusetts Institute of Technology
Advisor: Professor Stefanie Mueller
Project: Electrical Impedance Tomography (EIT) toolkit

- Performing benchmark tests for image reconstruction algorithms in EIT by calculating mean squared error using Python, MATLAB, and Swift.
- Implementing Gauss-Newton Solver for Electrical Impedance Tomography (EIT) in Swift.

Undergraduate Research Assistant **Summer 2019 - Present**
Department of Electrical Engineering, The University of Texas at Tyler
Advisor: Professor Premananda Indic
Project: Machine Learning to Detect Cravings and Stress in Patients with Substance Use Disorder

- Developing Machine learning Algorithms to detect stress and cravings using MATLAB and Python. Increased accuracy by 20 percent [1, 2].
- Developing a feature extraction pipeline for Machine Learning using MATLAB and Python.
- Developing data parsing API for annotated time series data in Python.
- Collaborating and coordinating with multidisciplinary team of MDs, PhDs, engineers, and industry professionals to build a consumer-grade product.
- Reviewing data fidelity from a wearable sensor and mobile framework used in clinical trials.

TEACHING EXPERIENCE

Laboratory Assistant, Linear Circuits **Spring 2021**
Department of Electrical Engineering, The University of Texas at Tyler
Supervisor: Professor Premananda Indic
- Presented hands on circuit implementation to a class of about 10.

PASS Tutor **Spring 2019**
Academic Success, The University of Texas at Tyler
- Tutored about 15 students every week for Chemistry, Physics, and Calculus.

AWARDS AND HONORS

Tapia Scholarship, Richard Tapia '21 Conference	2021
Autodesk Tapia Scholarship, Richard Tapia '20 Conference	2020
President's Honor Roll, The University of Texas at Tyler	2019 - Present
Dean's List, The University of Texas at Tyler	2018
Presidential Fellow Scholarship, The University of Texas at Tyler	2018 - 2022
(Full tuition, fees, books, room and board covered)	

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Vice President, UT Tyler IEEE Corona Chapter	2021 - Present
Junior Representative, UT Tyler IEEE Corona Chapter	2020 - 2021
IEEE (Student Member)	2019 - Present

LANGUAGES

English: Proficient
Nepali: Proficient
Hindi: Fluent

LAST MODIFIED: December 29, 2021