Sloke Shrestha - CV

Undergraduate Student
The University of Texas Tyler
Department of Electrical Engineering, RBN 2024
University of Texas at Tyler
3900 University Blvd., Tyler, TX 75799, USA
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Education

The University of Texas at Tyler, USA — 2018 – 2022 (anticipated)
Bachelor of Science in Electrical Engineering
Department of Electrical Engineering
Minor in Mathematics
Major GPA: 4.0/4.0
Cumulative GPA: 3.96/4.0

Research Interest: 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.

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

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

Work Experience

MIT CSAIL, Massachusetts Institute of Technology, USA 2021 – Present
Visiting Student. Department of Electrical Engineering and Computer Science
Advisor: Professor Stefanie Mueller

Predictive Analytics Lab, The University of Texas at Tyler, USA 2019 – Present
Research Assistant. Department of Electrical Engineering
Advisor: Professor Premananda Indic

PASS Tutoring Centre, The University of Texas at Tyler, USA 2019 (Spring)
Supervisor: Ceselie Tobin

Teaching Experience

EENG 3104 Linear Circuits I Lab, The University of Texas at Tyler, USA 2021 (Spring)
Supervisor: Professor Premananda Indic

Role in Projects:

Undergraduate Research Assistant 2019 – Present
NIH SBIR 1R44DA046151: *RAE (Realize, Analyze, Engage) - A digital biomarker-based detection and intervention system for stress and carvings during recovery from substance abuse disorders* ([1], [2]).

Principal Investigators:
Stephanie Carreiro, MD, University of Massachusetts Medical School
Premananda Indic, PhD, The University of Texas at Tyler
Megan Reinhardt, BS, RAE Health

The goal of the project is to develop machine learning algorithms for the detection of carvings and stress in individuals with substance abuse.

Role in the Project: Developing machine learning algorithms. Working with professional software engineers to ensure quality data flow from device to server.

Undergraduate Research Assistant 2019 – Present

NIH 1UO1 HL133536: Prematurity-related ventilatory control (Pre-Vent)

Principal Investigators:
Namasivayam Emblicanin, MD, University of Alabama at Birmingham
Premananda Indic, PhD, The University of Texas at Tyler

The goal of the project is to understand the physiological mechanisms associated with apnea of prematurity and develop machine learning algorithms for the prediction of life-threatening events in preterm infants.

Role in the Project: Developing machine learning algorithms.

Visiting Student 2021 – Present

Principal Investigators:
Stefanie Mueller, Associate Professor, Massachusetts Institute of Technology

The goal of the project is to propose an electrical impedance tomography (EIT) toolkit for designing and fabricating health and motion sensing devices.

Role in the Project: Running benchmark tests in the swift API that solves EIT. Adding functionality to the existing API.

Awards and Honors

Autodesk Tapia Scholarship, Richard Tapia '20 Conference	2020
Integration Bee Runner Up, The University of Texas at Tyler Math Club	2019
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)	

Memberships of 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

LAST MODIFIED: September 17, 2021