

Asiful Arefeen

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I am interested in Machine Learning application on mobile health, cardiovascular disease diagnosis, diet monitoring, embedded system and algorithm development. Part of my work focuses on developing explainable AI models for better behavioral modification and disease management.

EDUCATION

Arizona State University

PhD in Biomedical Informatics

Phoenix, AZ

Aug 2021 -

Washington State University

Completed 12 credits towards PhD in Computer Science

Pullman, WA

Aug 2020 - Aug 2021

Bangladesh University of Engineering & Technology

BS in Electrical & Electronic Engineering

Dhaka, Bangladesh

April 2019

EXPERIENCE

Embedded Machine Intelligence Lab, ASU

Graduate Research Assistant

Phoenix, AZ

Fall'2021 -

Embedded & Pervasive Systems Lab, WSU

Graduate Research Assistant

Pullman, WA

Summer'2021

Washington State University

Graduate Teaching Assistant

Pullman, WA

Fall'2020 - Spring'2021

- CPT_S 427 Computer Security
 - Set quizzes and graded them
- CPT_S 121 Program Design and Development C/C++
 - Held lab and office sessions, graded assignments
- CPT_S 122 Data Structures C/C++
 - Held lab and office sessions, graded assignments

PROJECTS

Inter-Beat Interval Estimation with Tiramisu Model

July 2021

- Submitted and accepted at ACM Health
- Available on *arXiv*

Boosting Lying Posture Classification with Transfer Learning

January 2022

- IEEE EMBC 2022

Forewarning Postprandial Hyperglycemia with Interpretations using ML

July 2022

- IEEE BSN 2022

On-Device Machine Learning for Diagnosis of Parkinson's Disease

July 2022

- IEEE BSN 2022

Sequential Diet Recommendation and Linear Optimization for Smart Diet Planner

August 2022

- Accepted at IEEE/ACM CHASE 2022

Multi-task Active Learning in Mobile Health

August 2022

- Submitted at AAAI 2023

Use of ML to Predict Medication Adherence in Individuals at Risk for CVDs

September 2022

- Elsevier Smart Health

CURRENT PROJECTS

User study on automated macronutrients estimation

January 2022 -

Explainable AI on Glycemic Response Classification

August 2022 -

AWARDS

- ASU Graduate College University Grant 2022-23
- NSF Student Travel Award to attend IEEE/ACM CHASE'22

COURSES

- CPT_S 223 Advanced Data Structures and Algorithms
- CPT_S 570 Machine Learning
- CPT_S 534 Neural Network Design and Application
- Math 420 Linear Algebra
- Math 511 Advanced Linear Algebra
- BMI 601 Health Informatics
- BMI 502 Foundations BMI Methods I
- BMI 505 Foundations BMI Methods II
- BMI 598 Embedded Machine Learning
- BMI 515 App Biostats Med & Informatics (ongoing)
- BMI 540 Problem Solving in BMI (ongoing)
- BMI 555 Stat Learning for Data Mining (ongoing)

SKILLS

- Python, LaTeX, Assembly language, C/C++, MATLAB, Verilog, Quartus, CYME software, AutoCad, Visual Studio, PSpice