PARKINSON
SCHOOL *of* HEALTH SCIENCES
AND PUBLIC HEALTH

Department of Health Informatics and Data Science and Center for Health Outcome and Informatics Research

HEALTH INFORMATICS SEMINAR SERIES
Presents:

"ECG-AI: Electrocardiographic Artificial Intelligence Model for Prediction of Heart Failure"

Abstract: *Heart failure (HF) is one of the leading causes of death in the US. Early diagnosis and treatment can prevent adverse health outcome and economic burdens of HF. A review of the literature shows there is a critical need for non-invasive approach using widely available tools for screening patients with risks of HF, and its sub-types such as Preserved left ventricular Ejection Fraction (HFpEF) and Reduced left ventricular Ejection Fraction (HFrEF). Dr. Karabayir will present how electrocardiogram (ECG) and other clinical factors can be used by traditional machine learning and deep learning algorithms to help evaluate the risk of HF and its subtypes. Furthermore, he will discuss uncovering the black-box side of Artificial Intelligence to understand ECG markers of HF risk by using GRAD-CAM algorithm.*

Speaker: **Ibrahim Karabayir, PhD**

Postdoctoral Research Associate, Health Informatics and Data Science
Loyola University Chicago

When: **Wednesday, July 28, 2021   11:00 am – 12:00 pm**

Join via Zoom Link: **https://luc.zoom.us/j/82419856439**

About the Speaker: Dr. Karabayir completed his PhD, in which he proposed a novel learning algorithm for deep convolutional network, in 2019 in the field of AI from Istanbul University, Turkey. His research focus is developing and modifying deep learning and machine learning algorithms and their applications in different clinical settings. He is currently a Postdoctoral Research Associate under the supervision of Dr. Oguz Akbilgic at Loyola University Chicago. He maintains different projects using Artificial Intelligence based algorithms such as assessing risk of heart failure, COVID-19 infections, development of acute respiratory distress syndrome, rapid decline of kidney function in sickle cell anemia, late-onset cardiomyopathy, and Parkinson's disease.

Approval: This educational activity conforms to the guidelines required for an educational program to receive CME Category 1 credit. Your activity was approved for 1 category 1 credits towards the AMA Physician's Recognition Award.

* Visit *here* to watch previous presentations and to find more information about future Seminars.

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