



**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**

# **“Generative AI: Review of Large Language Models and Their Applications in Biomedical Domain”**

**Presented by:**

**Nafiseh Mollaei, PhD**

**Postdoctoral Fellow, Department of Health Informatics and Data Science  
Loyola University Chicago**



**Abstract:** Pre-trained language models have received more consideration in recent studies as a result of their outstanding performance in the general natural language domain. In the general language domain, there are two main branches of pre-trained language models: BERT and GPT. The first one, BERT, has received the most attention in the biomedical domain; examples include BioBERT, while the second one has received less attention. In this presentation, Dr. Mollaei will demonstrate how the generative language model, along with some fine-tuning, can be used for tasks like extracting biomedical relationships, addressing queries, categorizing documents, and creating definitions for biomedical terms.

**About the Speaker:** Nafiseh (Cati) Mollaei, PhD is a Postdoctoral Research Associate in the Department of Health Informatics and Data Science at Loyola University Chicago. She received her PhD in Biomedical Engineering from NOVA University of Lisbon in Portugal in 2022. Prior to joining Loyola, she was a Research Assistant in the Medical Department at Volkswagen Autoeuropa in Portugal for more than four years. Her research focuses on leveraging Artificial Intelligence (AI) algorithms to prevent adverse health outcomes. Currently, she works with Dr. M. Samie Tootooni to utilize Large Language Models to identify key contributors of therapeutic inertia for hypertension management from clinical progress notes.

**Wednesday, August 9, 2023    12:00 pm – 1:00 pm**

**Location: 152A and 152B, CTRE**

**Join via Zoom: <https://luc.zoom.us/j/84180707491>**

\* Visit [here](#) to watch previous presentations and to find more information about future seminars