Abstract: Python is a high-level, interpreted programming language, which supports multiple programming paradigms, including functional and object-oriented programming. In this introductory learning conversation, we will introduce the conditional execution of code, loops, and function definitions in Python. We will then apply the newly learned concepts to implement several numerical analysis methods and a Monte-Carlo simulation. The lecture will involve peer learning and assessment and assumes no background knowledge of Python programming.

Bio: Dr. Mohammad Fanaei received his Ph.D. degree in Electrical Engineering from West Virginia University, Morgantown, WV, in 2016, and his M.Sc. and B.Sc. degrees, both in Electrical Engineering, from Isfahan University of Technology, Iran, in 2008 and 2005, respectively. Over the last six years, Dr. Fanaei has worked at three different universities, as an assistant professor of Electrical and Robotics & Mechatronic Systems Engineering at the University of Detroit Mercy (from 2016 to 2017 and from 2018 to present), as an assistant professor of Electrical Engineering at Bucknell University (from 2017 to 2018) and in the Iron Range Engineering Program in the Department of Integrated Engineering at Minnesota State University Mankato (from 2015 to 2016). Dr. Fanaei's research interests are in the broad areas of the design, analysis, and evaluation of machine learning and deep learning technologies enabling connected, automated, and autonomous driving systems, as well as the applications of stochastic signal processing in wireless communication systems and sensor networks. His teaching interests include embedded systems, digital design, wireless networks, cryptology and network security, communication systems, stochastic signal processing, and digital signal processing.