Florida Atlantic University I-DeepLearn Summer Workshop
July 11-15, 2022 / 8:30 AM – 4:30 PM
Engineering East Building, Boca Raton campus
Program Contact: Jessica Hibberd, jlewis92@fau.edu

I-DeepLearn aims to increase diversity in computer science and related fields by inviting female students entering grades 10-12 in fall 2022 to experience machine learning (Artificial Intelligence) and deep learning (AI processing) and their applications, specifically in the healthcare domain. In this one-week workshop, students will learn about essential concepts in machine learning and deep learning through a dynamic mix of hands-on programming projects and interactive discussions.

Introduction to Machine learning
- What is machine learning?
- Why machine learning?
- Examples of machine learning applications
- History of machine learning
- Different types of machine learning
- Important terminologies in machine learning

Introduction to Deep Learning
- What are Neural Networks?
- What is Deep Learning?
- Perceptron Learning
- Introduction to Gradient Descent Learning
- Introduction to multilayer Neural Networks

Programming
- Introduction to JavaScript
- Introductions to different machine learning datasets
- Hands-on research towards the applications of machine learning

Mentoring
- Learn from outstanding researchers in the field
- Connect to peers and learn from students with diverse backgrounds
- Be part of creating a better future by getting to know how they can use machine learning and deep learning to solve problems and help people

Program Requirements
- Minimum 3.25 high school GPA
- Completion of pre-calculus
- Completion of Computer Science I or fundamental programming skills and basic JavaScript