ARTIFICIAL INTELLIGENCE FOR CYBERSECURITY (ADV CERT)

Overview

Well-trained cybersecurity professionals are needed to secure our information systems and national infrastructure. However, in order to respond to increasingly sophisticated and varied attacks, these professionals should not only be familiar with traditional cybersecurity methods but also be adept at accessing, manipulating, and analyzing the enormous amounts of data generated by modern computing systems. The advanced certificate in artificial intelligence for cybersecurity helps to meet this need by ensuring that those entering the field, as well as cybersecurity professionals, establish a solid background in data science and have experience in applying data science methods to cybersecurity problems.

Two courses taken toward the certificate may double count with any of the existing master's and doctoral degree programs in computer and information science (M.S. in cybersecurity, M.S. in data science, M.S. in computer science, and Ph.D. in computer science).

Learning Outcomes

The advanced certificate in artificial intelligence for cybersecurity enables students to attain, by the time of certificate completion, the following:

1. Foundational knowledge of data mining and machine learning methods and how they can be applied to address real-world problems
2. A thorough understanding of data privacy and data security issues
3. The programming skills necessary to manipulate large data sets and to implement data mining and machine learning models
4. Experience applying data science and AI methods to solve cybersecurity problems such as intrusion detection, malware detection, and spam detection

CIP Code

30.7001 - Data Science, General.

You can use the CIP code to learn more about career paths associated with this field of study and, for international students, possible post-graduation visa extensions. Learn more about CIP codes and other information resources.