# Computer Science Focus Areas

Course selection should be done under academic advisement

#### **Network & Security**

**Computer Architecture** 

**Operating Systems** 

**Computer Networking** 

**Computer and Network Security** 

**Topics: Cryptography and Cybersecurity** 

**Topics: Secure Coding** 

**Topics: Information Systems Security** 

**Topics: Smart Grid Communication Networks** 

**Focused Capstone** 



#### **Data Science**

**Statistical Inference** 

**Data Mining & Predictive Modeling** 

**Database Systems** 

**Information Retrieval** 

**Machine Learning** 

**Natural Language Processing** 

**Focused Capstone** 



#### **Software Engineering**

**Database Systems** 

**Human Computer Interaction** 

**Software Engineering** 

**Programming Languages** 

**Focused Capstone** 



Foundational Courses

#### **Computational Biology**

**Statistical** Inference

**Foundations of Computational Biology** 

**Algorithms** in Computational Biology

**Genomics** and Bioinformatics

**Focused Capstone** 

## Artificial Intelligence

**Statistical Inference** 

**Human Computer Interaction** 

**Artificial Intelligence** 

**Machine Learning** 

**Natural Language Processing** 

**Theory of Computation** 

**Topics: Computer Vision and Multimedia Applications** 

**Focused Capstone** 



### Computer Graphics and Game Development

**Linear Algebra** 

**Statistical Inference** 

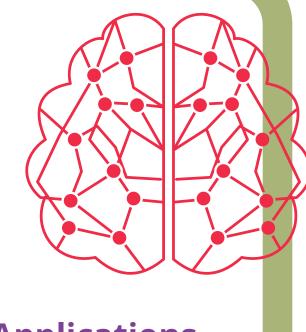
**Computer Graphics** 

**Human Computer Interaction** 

**3D Game Development** 

**Topics: Computer Vision and Multimedia Applications** 

**Focused Capstone** 



\*See the Computer Science Department website for full list of courses, including course numbers\*