Focus Areas within Computer Science @ JHU

**Natural Language Processing**
- Artificial Intelligence
- Information Retrieval and Web Agents
- Knowledge from Text
- Machine Learning
- Natural Language Processing
- Machine Translation
- Machine Learning: Linguistic & Sequence Modeling

**Fundamentals of Computing**
- Approximation Algorithms
- Algorithmic Game Theory
- Declarative Methods
- Intro to Algorithms
- Programming Languages
- Randomized & Big Data Algorithms

**Computational Biology**
- Computational Genomics: Sequences
- Computational Genomics: Data Analysis
- Computational Genomics: Applications
- Computational Personal Genomics
- Foundations of Computational Biology
- Intro to Algorithms
- Machine Learning for Genomic Data

**Software Engineering**
- Compilers & Interpreters
- Intro to Algorithms
- Human-Computer Interaction
- Object-Oriented Software Engineering
- Parallel Programming
- Programming Languages
- User Interfaces & Mobile Applications

**Video Games**
- Artificial Intelligence
- Computer Graphics
- Computer Vision
- Intro to Video Game Design & Lab
- Video Game Design Project

**Robotics**
- Algorithms for Sensor-Based Robotics
- Artificial Intelligence
- Computer Vision
- Computer Integrated Surgery I
- Computer Integrated Surgery II
- Human-Robot Interaction

**Systems & Networking**
- Computer Networks
- Compilers & Interpreters
- Database Systems
- Distributed Systems
- Operating Systems
- Parallel Programming

**Information Security**
- Blockchains & Cryptocurrencies
- Modern Cryptography
- Network Security
- Practical Cryptographic Systems
- Security and Privacy in Computing
- Web Security

**Big Data**
- Approximation Algorithms
- Causal Inference
- Data Intensive Computing
- Machine Learning
- Machine Learning: Deep Learning
- Machine Learning: Optimization
- Machine Learning: Representation Learning
- Randomized and Big Data Algorithms

**Business Computing**
- Computer Science Innovation & Entrepreneurship
- Databases
- Information Retrieval & Web Agents
- Object Oriented Software Engineering
- Security & Privacy in Computing
- User Interfaces & Mobile Applications
- Web Security