



## Master of Science in Computer Science and Data Analytics

Curriculum *(subject to change)*

### YEAR 1

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#### Semester 1 in Baku (Fall)

Course Name	Instruction
Advanced Software Paradigms	ADA
Computer Systems Architecture	ADA
Design and Analysis of Algorithms	ADA

#### Semester 2 in Baku (Spring)

Course Name	Instruction
Introduction to Big Data and Analytics	ADA
Two of the Technical Elective courses below:	
<ul style="list-style-type: none"><li>Artificial Intelligence</li><li>Database Management Systems</li><li>Information Retrieval Systems</li></ul>	GWU/online GWU/online GWU/online

#### Semester 3 in Washington, DC (Summer)

Course Name	Instruction
Technical Elective (Special Topic)	GWU

### YEAR 2

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#### Semester 4 in Washington, DC (Fall)

Course Name	Instruction
Master's Thesis I	ADA/GW
Advanced Topic	GWU
Three of the Technical Elective courses below:	GWU
<ul style="list-style-type: none"><li>Neural Networks</li><li>Machine Learning</li><li>Data Compression</li><li>Data Mining</li><li>Information Policy</li><li>Software Engineering</li><li>Distributed and Cluster Computing</li><li>Cryptography</li><li>Computational Linear Algebra</li><li>Computer Security Principles</li><li>Design of Human-Computer Interaction</li><li>Augmented and Virtual Reality</li><li>Internet Protocols</li><li>Computer Game Design and Programming</li></ul>	

**Semester 5 in Baku (Spring)**

<b>Course Name</b>	<b>Instruction</b>
Master's Thesis II	ADA
Applied Machine Learning and Data Analytics	ADA
One of the Technical Elective courses below:	ADA
<ul style="list-style-type: none"><li>• Natural Language Processing</li><li>• Computer Vision</li></ul>	