Mizzou
University of Missouri

Graduate Certificate in Data Analytics Engineering

Data science is an interdisciplinary area of scientific processes, methods, systems, and algorithms to obtain knowledge or insights from data. Data engineers design, manage, and optimize the flow of data within an organization. The Graduate Certificate in Data Analytics Engineering will prepare students and professionals to understand the fundamentals and advanced skills in data analytics engineering. It enables the graduating students to address the growing need for data engineering and data science professionals who are trained in advanced data analytics and can collect, process, and transform large streams of data into understandable and actionable information for the purpose of making decisions.

Requirements

The certificate is a 12 credit hour program.

Required Courses		
CMP_SC 7380	Database Management Systems I	3
CMP_SC 8370	Data Mining and Knowledge Discovery	3
Electives (select two courses)		
CMP_SC 7350	Big Data Analytics	3
CMP_SC 7530	Cloud Computing	3
CMP_SC 7650	Digital Image Processing	3
or ECE 7655	Digital Image Processing	
CMP_SC 7720	Introduction to Machine Learning and Pattern Recognition	3
or ECE 7720	Introduction to Machine Learning and Pattern Recognition	
CMP_SC 8530	Cloud Computing II	3
CMP_SC 8630	Data Visualization	3
CMP_SC 8650	Advanced Image Processing	3
CMP_SC 8690	Computer Vision	3
CMP_SC 8725	Supervised Learning	3
or ECE 8725	Supervised Learning	
CMP_SC 8735	Unsupervised Learning	3
or ECE 8735	Unsupervised Learning	
CMP_SC 8740	Advanced Natural Language Processing	3
CMP_SC 8790	Filtering, Tracking and Data Fusion	3
ECE 8810	Advanced Digital Signal Processing	3
CMP_SC 8870	Modeling and Management of Uncertainty	3
ECE 8860	Probability and Stochastic Processes for Engineers	3