



Bachelor's Degree Program
SOFTWARE DEVELOPMENT
 Specialization: **Big Data and Analytics**

TECHNOLOGY
 SOFTWARE AND INFORMATION SYSTEMS

ABOUT THIS DEGREE PROGRAM

TECH CORE

A Foundation in Technology

This program is anchored with Tech Core, curriculum designed to help you build a foundation of interdisciplinary skills you'll need for today's Internet of Things (IoT) economy. You'll learn relevant skills in operating systems, programming, hardware, connectivity and security – giving you a hands-on foundation in engineering technology, information technology and software and information systems.

A Program to Fuel Your Future

In this specialization, you'll gain big data and analytic software development skills that address the complexity of examining large and varied data sets as well as uncover hidden patterns in information. You'll understand how predictive analytic measures and machine learning tools are applied to help drive quick decision-making in industry.

Is This Program for You?

Interested in pursuing a career in software development and helping business and society tackle problems requiring analysis of large volumes of data, then this program focused on big data and analytics may be a good fit for you.

CAREER OPPORTUNITIES

Graduates of DeVry's Software Development degree program with a specialization in Big Data and Analytics may consider, but are not limited to, the following careers:

- Big Data Application Developer
- Big Data Developer
- Software Application Developer
- Software Developer - Big Data
- Software Developer - Data Analyst
- Software Systems Developer

WHAT YOU'LL LEARN

Essentials

- Communicate methods and findings
- Collaborate in dynamic work environments
- Solve complex problems
- Analyze numerical data
- Apply appropriate technologies

Tech Core

- Produce, secure, operate and troubleshoot small enterprise networks
- Network, secure and deploy digital devices and sensors into the IoT ecosystem
- Solve technical problems using an algorithmic approach and basic programming and coding methods
- Install and configure operating systems using command-line interface (CLI)

Program

- Design web distributed systems
- Develop applications
- Analyze and design software systems
- Product life cycle management

Specialized

- Acquire, retrieve and store data
- Mine and analyze data
- Use advanced techniques to analyze data
- Program and manage large data systems

QUICK FACTS

121
CREDIT HOURS
 minimum credit hours required for graduation

24%
GROWTH
 nationally from 2016-2026 for Employment of Software Developers¹

2 + 8
YEARS MONTHS
 minimum length to graduation²

TWO IN ONE

2-IN-1

Earn an extra credential with our unique 2-in-1 design. All courses in our, Information Technology & Networking Associate degree are embedded within this program. So you can earn an associate degree on the way to your bachelor's.

PORTABLE IOT KIT

IoT KIT

You can simulate the Internet of Things (IoT) experience wherever you are. With our portable IoT Kit, you'll get hands-on experience in how IoT technologies work in the real world. Your kit will include digital devices, sensors and other tools you will use to build relevant IoT systems.

What are your career goals?

“To create applications that will make a difference. DeVry is helping me by teaching me how to make those applications.”

- *Mayra S.,*
 2017 DeVry Graduate, Computer Information Systems



¹ <https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm>. Data reflects a national projected percentage change in employment from 2016-2026 and may not reflect local economic conditions.

² Not including breaks. Assumes year-round, full-time enrollment. Additional program information may be found at <https://www.devry.edu/degree-programs.html>.



ESSENTIALS

50
CREDIT HOURS

Communication Skills

ENGL112 ¹	Composition
ENGL135	Advanced Composition
ENGL216	Technical Writing
SPCH275	Public Speaking

Humanities²

ETHC232	Ethical and Legal Issues in the Professions
LAS432	Technology, Society, and Culture

Social Sciences

ECON312	Principles of Economics
SOCS185	Culture and Society
SOCS325 ³	Environmental Sociology

Mathematics and Natural Sciences

MATH114	Algebra for College Students
MATH221	Statistics for Decision-Making
MATH233	Discrete Mathematics
PHYS204	Applied Physics with Lab

Personal and Professional Development

CARD405	Career Development
COLL148	Critical Thinking and Problem-Solving

¹ Students enrolled at a New Jersey location take ENGL108 in lieu of this course.

² Students enrolled at a Pennsylvania location must take HUMN451 as part of this requirement.

³ Students enrolled at a Nevada location must take POLI332 in lieu of this requirement.

TECH CORE

21
CREDIT HOURS

Tech Core

CEIS101	Introduction to Technology and Information Systems
CEIS106	Introduction to Operating Systems
CEIS110	Introduction to Programming
CEIS114	Introduction to Digital Devices
NETW190	Fundamentals of Information Technology and Networking I
NETW200	Fundamentals of Information Technology and Networking II
SEC285	Fundamentals of Information Security

PROGRAM

38
CREDIT HOURS

Information Systems and Programming

CEIS236	Database Systems and Programming Fundamentals
CIS170C	Programming with Lab
CIS247C	Object-Oriented Programming with Lab

Application Development

CEIS295	Data Structures and Algorithms
CIS321	Structured Analysis and Design
CIS339	Object-Oriented Analysis and Design
CIS355A	Business Application Programming with Lab
WEB375	Web Architecture with Lab

Information Technology and Networking

CEIS305	Operating Systems
---------	-------------------

Senior Project

CEIS392	Product, Project, and People Management
CEIS494	Senior Project I
CEIS496	Senior Project II

Technology Career Preparation

CEIS299	Careers and Technology
CEIS499	Preparation for the Profession

SPECIALIZED

12
CREDIT HOURS

Big Data and Analytics

CEIS330	Strategies for Data Acquisition, Storage and Retrieval
CEIS340	Database Management
CEIS480	Data Mining and Analytics
CEIS485	Data Interpretation and Statistical Analysis