VT | CONTINUING AND PROFESSIONAL EDUCATION **VIRGINIA TECH.**

Powered By **Fullstack Academy**

Become a Data Analyst with the Virginia Tech Data Analytics Bootcamp

- Receive immersive, live online instruction
- Learn top tools like Tableau, SQL, and ChatGPT
- Graduate with a portfolio of projects
- Get job search support to help you get hired

Curriculum

Business Analytics with Excel	Become a power Excel user by learning how to use advanced features.	• Conditional formatting and important functions • Analyzing data with pivot tables • Statistics in Excel • Macros and Power Query
SQL: Data Acquisition and Manipulation	Design, learn, and apply the Structured Query Language (SQL) for database definition and manipulation.	• SQL databases and tables • SQL operators, constraints, and data types • SQL JOINs, set operators, and subqueries • SQL window functions and views
ETL (Extract, Transform, and Load) Data Processes	Integrate data from multiple sources into one data set to prepare it for storage.	• ETL fundamentals using AWS Glue • Data source identification, extraction, and transformation • ETL tools and technologies
Data Visualization Using Tableau	Create and optimize highly interactive data visualizations using Tableau.	• Tableau charts, dashboards, and stories • Data preparation, filtering, and analytics in Tableau • Advanced Tableau Desktop features

Please note that this is a sample curriculum and is subject to change.

Curriculum

Fundamentals of Python Programming	Learn to use Python to build and manage data structures.	• Conditional statements, loops, and functions • Object-oriented programming (OOPs) and threading
Data Analytics with Python	Apply Python programming toward analyzing, wrangling, and visualizing data.	• Linear algebra in Python • Statistics in Python • Data analysis, wrangling, and visualization using Python libraries—including NumPy and Panda
Essentials of Generative AI	Gain in-demand generative AI skills using top tools like ChatGPT, Google Gemini, and more.	• GenAI functionality, prompt engineering, and ethics • AI use cases for data analysis and storytelling
Applications of Generative AI in Data Analytics	Explore how to use AI in data analytics to aid data discovery, exploration, and visualization.	• ETL and data modeling automation with AI • AI transformation in data visualization
Ethics in Data Analytics	Understand the ethical implications of data practices—from privacy and consent to data bias.	• Legal frameworks and data privacy • Informed consent principles • Ethical obligations of data professionals
Capstone Project	• Prepare to thrive in the field by completing a Capstone Project to show employers • Use the data tools taught in the program (Excel, SQL, AWS Glue, Tableau, and Python) to demonstrate your skills with a real-world final project	
Career Success Services	• Build a technical resume and craft cover letters • Optimize your LinkedIn profile • Network within the industry	

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