DIVERGENCE ACADEMY

Executive Data Science

Learn to recruit, assemble, evaluate, and develop a team with complementary skill sets and roles.

TEAMS. STRUCTURES. STRATEGIES.

BENEFITS

- Build and develop a team with complementary skill sets and roles
- How to assemble and lead a Data Science enterprise
- Describe the structure of the data science pipeline
- Understand strategies for keeping your team on target

Duration / Cost

40 Hours / $5,000

PROGRAM OVERVIEW

You will learn what you need to know to begin assembling and leading a data science enterprise, even if you have never worked in data science before. You'll get a crash course in data science so that you'll be conversant in the field and understand your role as a leader. You'll also learn how to recruit, assemble, evaluate, and develop a team with complementary skill sets and roles. You'll learn the structure of the data science pipeline, the goals of each stage, and how to keep your team on target throughout. Finally, you'll learn some down-to-earth practical skills that will help you overcome the common challenges that frequently derail data science projects. This course is a practical introduction to the interdisciplinary field of data science and machine learning, which is at the intersection of computer science, statistics, and business.

CLOUD COMPUTING AND DATA SCIENCE BUSINESS MODELS

What are some current business models in online services and cloud computing? What is your company's data science strategy? Brainstorming session on possible revenue models for your business.

UNDERSTANDING THE BIG DATA LANDSCAPE: CHALLENGES, TECHNOLOGIES, AND TRENDS

Popular data engineering and data science technologies. Who is using what technology and why? What are some emerging trends?

REAL-TIME ANALYTICS AND INTERNET OF THINGS

Why real-time analytics? Message queues and Real-time analytics. Off-the-shelf technologies to implement real-time analytics solutions. Building efficient ETL pipelines using available technologies. Possible IoT business models.

PROGRAM OVERVIEW

ACCESS TO TOOLS & RESOURCES

- CRASH COURSE TO DATA SCIENCE: Understand what the terms mean and how they play a role in successful organizations, learn what all the data science action is about, including those who will eventually need to manage data scientists.

- BUILDING A DATA SCIENCE TEAM: Data science is a team sport. As a data science executive, it is your job to recruit, organize, and manage the team to success. We will cover how you can find the right people to fill out your data science team, how to organize them to give them the best chance to feel empowered and successful, and how to manage your team as it grows.

- MANAGING DATA ANALYSIS: Describe the process of analyzing data and how to manage that process. We describe the iterative nature of data analysis and the role of stating a sharp question, exploratory data analysis, inference, formal statistical modeling, interpretation, and communication. In addition, we will describe how to direct analytic activities within a team and to drive the data analysis process towards coherent and useful results.

- DATA SCIENCE IN REAL LIFE: Have you ever had the perfect data science experience? The data pull went perfectly. There were no merging errors or missing data. Hypotheses were clearly defined prior to analyses. Randomization was performed for the treatment of interest. The analytic plan was outlined prior to analysis and followed exactly. The conclusions were clear and actionable decisions were obvious. Has that ever happened to you? Of course not. Data analysis in real life is messy. How does one manage a team facing real data analyses? We contrast the ideal with what happens in real life. By contrasting the ideal, you will learn key concepts that will help you manage real life analyses. You will learn also learn about the contemporary trends in Big Data, IoT, and Cognitive Artificial Intelligence (AI).

- EXECUTIVE DATA SCIENCE CAPSTONE: The Executive Data Science Capstone, the culminating project, is an opportunity to apply what they've learned to a real-world scenario. Your task will be to lead a virtual data science team and make key decisions along the way to demonstrate that you have what it takes to shepherd a complex analysis project from start to finish. You will prepare and deliver a presentation, which will be evaluated by your fellow participants.

"You have to think about the generation of data as a strategic imperative."