Foundation Data Science for Business Managers

6 week program

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Big Data and analytics are changing the world rapidly. This unique course prepares you for a leading role in this new reality.

The JADS Data Scientist Foundation program is an introduction program for professionals based on the dual perspectives of the universities of Eindhoven and Tilburg. After the course, participants can continue in the Data Science for Business Managers program Level 1 (7 months) or Level 2 (1 year).

Bridge between analytics and busines

This 6-week program is targeted at professionals and managers eager to learn how to integrate data and analytics into their work.

Where data engineers and data scientists are technical experts, Analytics Translators are the bridge with other business functions. This program educates you in the role of Analytics Translator. This role is crucial to ensure that data science connects flawlessly to the business needs.

Chapel in the Marienburg

A solid understanding of Data Science

Upon completion of the program, you have a solid understanding of machine learning and data engineering. You will know the value that Big Data and analytics could bring to the organization, and master the skills to translate business goals to data-science questions.

You will master the skill to define a good data-science project and translate the work into a logical structure of tasks. You recognize and master the opportunities and practical applications of data science in your own sector (professional services, industry, health, supply-chain, energy or public sector).

What you will do

Introduction: Data science — new forms of data, new analytics and new opportunities. We discuss Big Data, predictive algorithms, machine learning and AI. Typical applications that are dealt with, ranging from data science to make current processes and services more efficient, to new products with smart features, and data and analytics as a basis for new business models.

How does data science work? We discuss data-analytic thinking and the CRISP-DM model for data-science projects. We develop a fundamental grasp of the main steps of a data-science project: translating a business goal to a data-science question, finding and accessing data sources, extracting features from data, training and selecting a machine-learning algorithm, evaluating the performance and deploying the algorithm in a machine-learning pipeline. We develop and discuss practical implementations of machine learning and data engineering in a Python-based analytics environment.

Orientation: this 6-day program is a primer to the ensuing the Data Science for Business Managers program Level 1 (7 months) or Level 2 (1 year). The insights of this Foundation program are designed to help you orientate in the data-science world, and establish your learning goals and career ambitions for your further development in

Data scientists are T-shaped professionals

The T-shape visualizes the idea that a successful career is based on the combination of deep technical expertise (the vertical bar) and wide and broad boundary-crossing skills (the horizontal bar).

We develop T-shaped Data Scientist who are both tech savvy and business savvy. Who do understand the technical skills of data engineering and know how to use data-warehouses, build a data pipeline and access Big Data cloud solutions. But who also understand how business models and strategies work, are able to manage data-science projects delivering results, and in general, know what it takes to get things done in large and complex organizations.

Teaching methods

Real challenges make learning motivating, help get your organization involved, and are a catalyst to achieving real impact. The program is built around a CRISP-DM data-science project.

Become part of our community

The Mariënburg, a former convent in the historical center of Den Bosch is JADS's home. It's a welcoming, inspirational and atmospheric environment for life-long learning and becoming part of our community, with the former chapel functioning as the main auditorium, and the vast complex offering many surprising authentic details reminiscent of its former function (and housing a large number of data-driven startup companies).

Our professors

The program is taught by a combination of senior experts working in business and society, and professors from Eindhoven Technical University and Tilburg University. In the assignments, you are supported by practitioners who combines an academic affiliation with practical expertise in your sector (professional services, industry, health, supply-chain, energy or public sector).

Prof. dr. Jeroen de Mast

The program's teaching team is headed by Professor Jeroen de Mast. Jeroen is professor of statistics and data science at the University of Waterloo (Canada), Scientific Director at Holland Innovative, and Academic Director of Professional Education at JADS.

Information session

Join our information sessions. Discuss the program and your ambitions with JADS's professors and learn about your peer cohort. Register at our website.

Contact us

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Changing the world with Data Science

"My world has changed now. I look back on a year in which I gained new insights, new knowledge, met a lot of new people and it made me understand the world better. Especially the world of Data Science. If you want to know why the world is changing and how you can benefit from that, you should definitely study Data Science.."

- Sven van Egmond - JADS Participant

Program in brief

May & November

Den Bosch / Online

Acknowledgement of participation

€ 3,450

8 hrs/week (class) + 8 hrs/week (assignments)

6 Weeks