
Master in Big Data Solutions

www.barcelonatechnologyschool.com

eurecat
Centre Tecnològic de Catalunya

Program co-organized by BTS and Eurecat



Welcome

If you're passionate for technology and want to contribute to drive the digital transformation, Barcelona Technology School is your place.

The digital ecosystem in Barcelona is now warmer than ever. The strategic alignment of the government, the industry and educational institutions like BTS, are mixing the best ingredients to boost the European capital of innovation.

The results of the Barcelona's digital strategy are excellent, international companies are landing in Barcelona to relocate their digital and tech headquarters. Just to mention a couple of examples, this is the recent case of Zurich insurance group, which is opening its global Big Data center in the European capital of innovation. Also the Swiss company Nestlé has recently announced that their international digital services will be lead from the city.

A healthy startup environment also feeds this innovative ecosystem; the city concentrates 60% of the total

investment on startups in Spain. This, supported by initiatives like the Mobile World Congress, makes the city an ideal place for international entrepreneurs. More and more, startups, accelerator programs, venture capital players and tech educational projects choose the city to develop its activity.

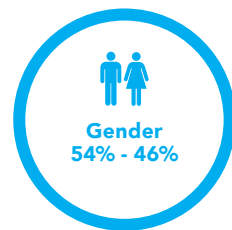
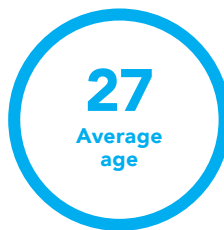
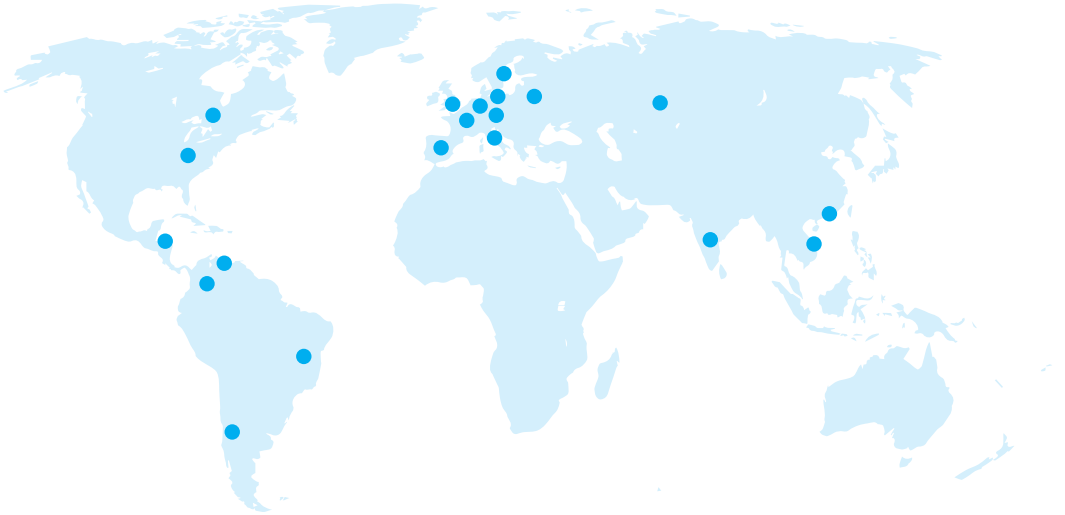
As consequence of this healthy tech ecosystem, it is generated a high demand of digital talent. That permits Barcelona Technology School to ensure you professional experience through paid internships and job opportunities during master programs that will help you to develop the most demanded digital skills.

Now, you have the opportunity to join the digital transformation from one of the hottest international tech spots.

Josep Clotet
General Manager



BTS Student Profile



55%
Engineering
& Computing



27%
Economics &
Management



9%
Sciences



9%
Others

Academic Board (cv-professional experience)

Strategic Advisory Board



Ricardo Baeza
Yahoo!
VP of Research



Aleix Valls
Mobile World Capital
General Manager



Marko Gargenta
Twitter
Director of Twitter
University



Sudha Jamthe
Ebay
Mobile Business Leader



Andy Feierfeil
Target
Senior Manager Mobile

The members of the BTS board of strategic advisors are well known industry leaders who take care of the quality and contents of the programs.

Academic Board (cv-professional experience)

Academic Directors



Sandro Mancuso
London Software
Craftsmanship Founder



Elies Campo
Whatsapp
Business Development

Professors



Marc Planagumà
Big Data



Miquel Rodríguez
Agile



Saul Tessler
Entrepreneurship



Jorge Blasco
Digital Business



Javier Domingo
Cloud Computing



Pablo Sordo
Android Development



Gaby Prado
User Experience



Michele Trevisiol
Big Data



Sonia García
Web Development



José Carlos Gil
Software Craftsmanship



José E. Rodríguez
Web Development



Pedro Fernandes
Creative Technology



Martí Escursell
Venture Capital



Marc Boquet
iOS Development



Alfred Maeso
Project Management

BTS

METHODOLOGY

LEARNING

ECOSYSTEM

Barcelona Technology School has developed its own practical, active and participatory methodology with emphasis on “learning by project”.

A key part of the program is project-based learning, where participants will either generate and develop their own digital projects & solutions. This methodology reflects digital industry demand for new professionals with skills such as:

Core Skills

General in all BTS Programs



Empathy & Communication

International Scope

Flexibility

Collaboration & Network

Transversal Vision & Curiosity

Compromise & Responsibility

BTS



Academic Board

High qualified instructors and well known professionals



Career Mentors

Get professional orientation for your digital career



Entrepreneurs & Incubators

Inspire your own projects and new disruptive digital business



Digital Companies

Visit and learn from the tech leaders.



IT Labs & I+D+i

IT Labs & innovation projects exposure



Project Mentors

Real & experienced Professionals will mentor your digital projects



University

Ensures academic accreditation, quality and certification

Technical Skills

Specific for each Program



Data-Driven Business

Statistics & Programming

Data Science

Algorithms for Data Science

Infrastructure & Cloud

Data Visualization & Exploitation

Big Data Solutions

Big Data Applications

Business and Innovation Skills

Specific for each Program



Digital Business Administration

Mobile Business

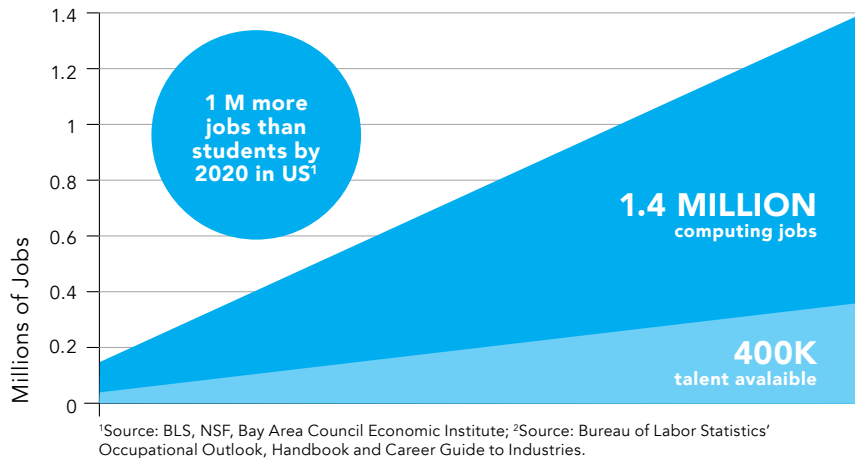
Creativity & Innovation

Analytics & Data

Project Management

Entrepreneurship

Digital companies need your talent



By **2024** there will be **4.500.000** unfilled computer science jobs worldwide²

Tech industry is exploding and the key digital companies need your talent. Barcelona Technology School connects your career with the digital sector while offers you the most demanded digital knowledge & skills.

Thanks to the agreements Barcelona Technology School has with the digital industry, you will have the chance to live a professional experience trough paid internships in some of the top digital companies that are part of the BTS Ecosystem.



Your
Talent

BTS

Digital
Industry

Paid Internships & Jobs Opportunities

Sports

All the BTS students enrolled into a Master program have free access to one of the best sport clubs in the city which is located in front of the beach. Enjoy swimming pools, gym and lead classes, spa, paddle courts and much more.

Play sports, make friends or simply take a relaxed bath on the sea.



Master in Big Data Solutions. MBDS



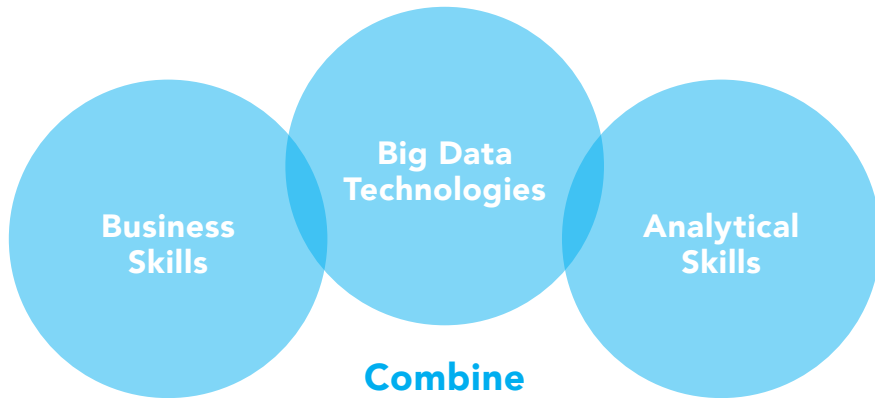
Objectives

MBDS main goal is to help you to boost innovation applying the most demanded analytics and big data skills.

During this program you will learn to extract relevant insights from data and to generate strategic solutions for any kind of organization or industry using the most advanced analytics and data technologies.

Become an international professional able to discover insights and drive innovation in any organization.

Exciting Big Data Opportunities



4,4 M

Jobs created by Big Data

Health care, Finance, Technology,
Public Administration, Internet of Things,
Marketing...

*Gartner predicts 4,4 million jobs created by 2015.

Contents Master in Big Data Solutions



Data-Driven Business

1. Data economy
2. Lifecycle of data services
3. Managing Big Data Projects
4. Agile



Algorithms for Data Science

1. Classification
2. Neural networks
3. Social networks
4. Geospatial analytics



Statistics & Programming

1. Basic data operations
2. Data manipulation in Python
3. Probability
4. Estimation



Infrastructure & Cloud

1. Data engineering
2. Scalability systems
3. Architectural practices
4. Infrastructure management



Data Science

1. Foundations of data analytics
2. The data science pipeline
3. Main analytic techniques
4. Visual analytics



Data Visualization & Exploitation

1. Exploitation
2. Delivery models for data analytics
3. Interaction concepts
4. Visualization of graphs

Contents Master in Big Data Solutions



Big Data Solutions

1. Architectural solutions
2. Web development
3. Mobile development
4. User experience



Big Data Applications

1. Customer analytics
2. Social media
3. Logistics
4. Telecommunications



Digital Business

1. The digital transformation
2. Digital products
3. Online marketing
4. Creative strategy on the internet



Creative Technology

Ability to think creatively with a business frame of mind, focusing on bringing new innovations to market. It will instill an appreciation of the characteristics and motivations of creative people.



Entrepreneurship

Basics associated with innovation and building a new venture or initiative from scratch either inside an existing organization or as a new startup



Project

Hands-on training. Thanks to a Big Data transversal challenge, students combine business skills, Big Data technologies and analytical skills aimed to discover insights and drive innovation.

Details Master in Big Data Solutions

TYPE	LOCATION	DURATION	LANGUAGE
Full Time Master degree	Barcelona, Spain	9 months (1 academic year)	English
ACCREDITATION	CREDITS	INTAKE	FEES
by Barcelona Technology School	60 ECTs	October	17.000€

PAID INTERNSHIPS & DIGITAL JOBS

BTS offers paid internships in leading digital companies to their students. Take advantage of the BTS ecosystem and get a professional experience during & after the program.

Ask for information:



info@barcelonaitschool.com



+34 933 041 721

Master in Big Data Solutions

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Eurecat is a leading technology centre based in Catalonia, partner in 160 major local and international R&D&I consortium-based projects with high strategic value, and boasts 73 patents and seven spin-offs.

Eurecat also leads the Big Data Centre of Excellence of Barcelona, a centre driven by Oracle, the Government of Catalonia and the Barcelona City Council to empower Big Data projects and ecosystem. In addition, the centre offers services for specialized professionals (Data Scientists, Data Engineers and Data Business Analysts) and a dissemination programme focused on showing trends and Big Data success cases.

Introduction to Software Development. Pre-Course

For entry students without technical background that want to enroll the Master in Big Data Solutions.

TYPE	STARTS	DURATION	FEES
Full time	September	4 weeks	2.200€

Technology background is not mandatory

Contents Introduction to Software Development



Introduction to relational Database & SQL

1. Introduction to relational Database
2. Data management language
3. SQL (Structured Query Language)
4. Data definition language



Introduction to Java

1. Java basics
2. Flow of control
3. Composition and inheritance
4. Interfaces



Introduction to Object-oriented programming

1. Introduction to software development lifecycle
2. Fundamentals of programming
3. Object-oriented programming



My first development project

1. Hands on work

The aim of this course is to provide the base knowledge that any student needs to enroll the Master in Big Data Solutions.

How to apply

If you are passionate about Big Data and you would like to access to job opportunities, develop the best digital talent and have a master experience in Barcelona...we just ask you for 4 requirements:

1 Application Form

barcelonatechnologyschool.com

2 Motivation Letter & CV

Candidates must send to the admissions office their CV as well as a motivation letter explaining how they think the digital industry will be in the next five years and how they could contribute to the digital transformation.

You can submit this documentation directly to info@barcelonaitschool.com

3 Interview

Our admission board, as well as the director of the program, will analyze your candidature and if you meet the profile of Barcelona Technology School, we will call you to have a chat.

4 Payment

To ensure your place on the Master, you must secure it by making the reservation payment.

MBDS

Data-Driven Busines, Statistics & programming, Data Science, Algorithms for data science, Infrastructure & Tools, Data Visualization & explotation, Digital innovation, Digital & Mobile Business and Entrepreneurship.

Full-Time Program

Barcelona

9 Months

English

Intake: October

60 ECTs

17,000€

Awarded by Barcelona Technology School.

Admissions Office

+34 933 041 721

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73% of all jobs in the next 5 years will require technology skills



"We live in a data-driven world. Increasingly, the efficient operation of organizations across sectors relies on the effective use of vast amounts of data.

Making sense of big data is a combination of organizations having the tools, skills and more importantly, the mindset to see data as the new "oil" fueling a company.

Unfortunately, the technology has evolved faster than the workforce skills to make sense of it and organizations across sectors must adapt to this new reality or perish."

Andreas Weigend
Former Chief Scientist Amazon.com



why **BTS**

- 1 Certification awarded by Barcelona Technology School.
- 2 Professional experience during the Masters through paid Internships & Job Opportunities.
- 3 Ecosystem of top digital companies and tech labs.

An aerial photograph of Barcelona, Spain, showing a dense urban landscape with numerous buildings, streets, and green spaces. The city is viewed from a high angle, looking towards the sea in the background.

GREAT CAREERS ARE WAITING FOR BARCELONA TECHNOLOGY SCHOOL GRADUATES

- 4 International environment of tech people from all over the world.
- 5 Development of the most demanded digital skills.
- 6 Beach & sports club, social and sports installation located on the beachfront of Barcelona.

Information and admissions

info@barcelonatechnologyschool.com
(+34) 93 304 17 21

Location

Barcelona. Almogàvers 123
Barcelona's Technological
district (22@)



BTS

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