business data science
GRADUATE PROGRAM

RESEARCH MASTER BUSINESS DATA SCIENCE

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JOINT DEGREE

Erasmus

UNIVERSITY OF AMSTERDAM

VU VRIJE UNIVERSITEIT AMSTERDAM

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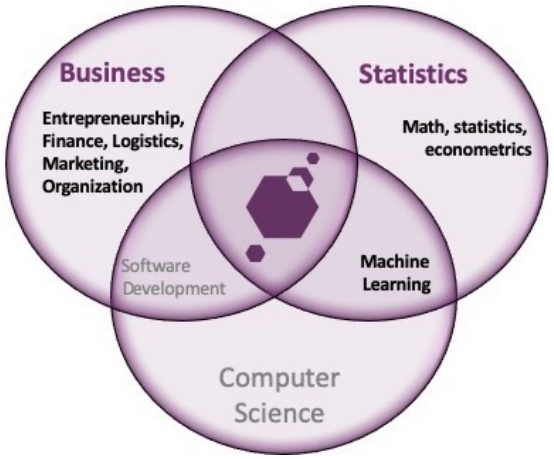
TAILORED PHD TRAJECTORY

25 TALENTED STUDENTS

CLOSE COLLABORATION WITH FACULTY



2-YEAR RESEARCH MASTER (120 EC)

HIGHER THEORETICAL LEVEL THAN TRADITIONAL MASTER'S

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THREE PILARS

DATA SCIENCE FOUNDATION
Acquiring Skills

1st Year

Mathematics, Statistics, Econometrics, Micro-econometrics, Time-series, Simulation Analysis & Optimization, Parallel Computing & Big Data, Supervised Machine Learning, Unsupervised Machine Learning, Deep Learning, Natural Language Processing

Bayesian Econometrics, Reinforcement Learning, Precision & Forecasting

BUSINESS FOUNDATION
Building Knowledge

Decision Theory for Business
Business Foundation
Introduction to the Departments

Track Electives
Tracks:
- Quantitative Finance
- Management Science
  (Entrepreneurship & Innovation; Human Resources & Organization; Marketing)
- Supply Chain Analytics

RESEARCH PRACTICE
Aligning Skills & Knowledge

Research Hackathon
Research Clinic

Research Master Thesis

Research Assistantships Opportunities

2nd Year

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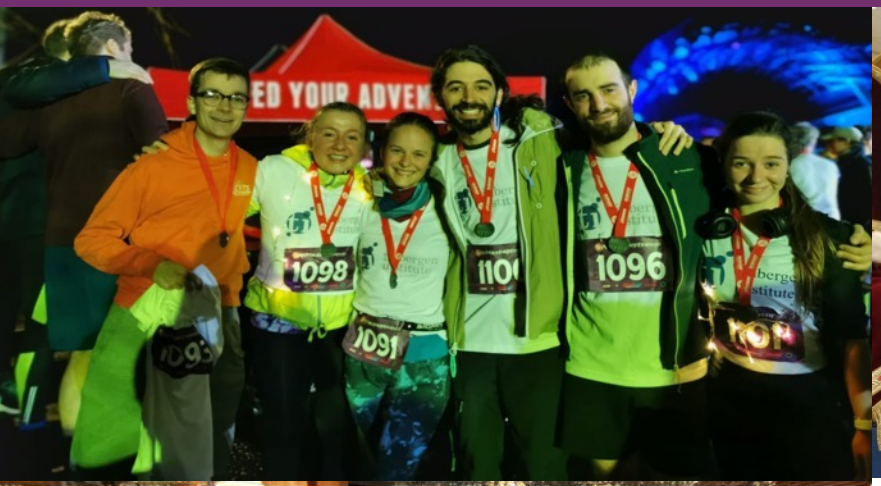
STRONG COMMUNITY



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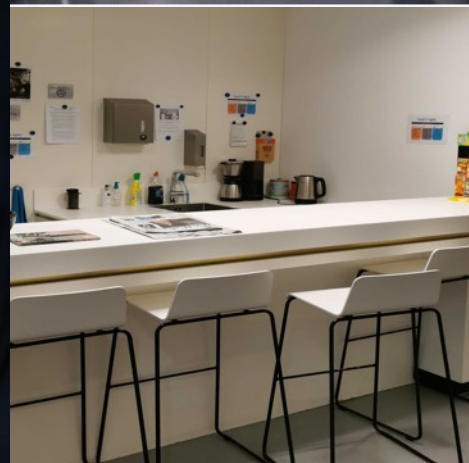
DEDICATED LOCATION IN AMSTERDAM



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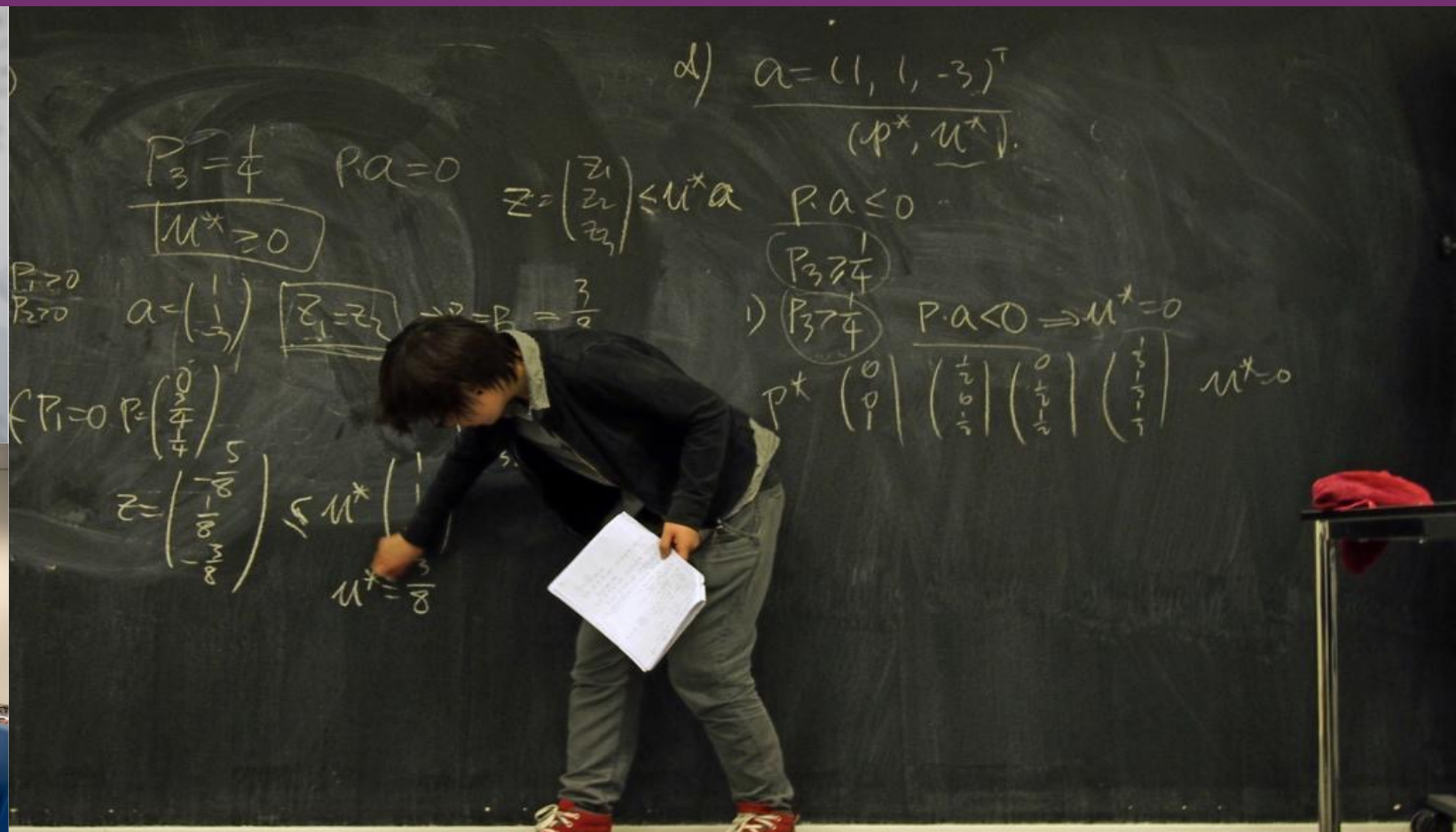
TOP TALENTS



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SUPPORT

- Apply for Scholarships
  - https://www.eur.nl/en/education/practical-matters/financial-matters/scholarships-grants
  - BDS offers basic, partial, and full scholarships to a small selection of first year students
  - In the second year, BDS assigns scholarships based on students' performance
- TA/RA positions are possible at the end of the first year
- Reimbursement of transportation costs from/to Amsterdam/Rotterdam

TIMELINE

Year 1: Courses	Find your topic and supervisor – Work as RA
Year 2: Electives	Thesis – PhD Application
Year 3 - 5: PhD	

After BDS?

- Academia (comparable to other 5-year PhD programs)
- Regulatory bodies (Central banks; regulators (AFM; ESMA); EU institutions, ministries, …)
- Industry (Banks, large companies with data science needs)

High to excellent earning potential in all the above

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EXAMPLES OF THESES TOPICS for the MANAGEMENT SCIENCE & SUPPLY CHAIN ANALYTICS TRACKS

Marketing

Retailing (inflation/pricing, marketplaces, omnichannel, channel synergies, metaverse, blockchains, NFTs, etc.); Biases (algorithmic bias, discrimination, diversity, etc.); Branding; New Product Innovation (crowdsourcing, adoption etc.); Marketing-finance; Social media (eWOM, influencer marketing, engagement, multi-platform effects, owned social media, earned social media); Sustainability; Recommendation Systems

Journals: Marketing Science, Journal of Marketing, Journal of Marketing Research, Journal of the Academy of Marketing Science, International Journal of Research in Marketing, Journal of Retailing

Management, Organization, & Information Systems

HR Analytics; AI & wellbeing; Digital transformation; Technology adoption; IT governance; IT development and deployment;
ML for Innovation; ML for Creativity & Entrepreneurship; Data-driven Job matching; Text analyses for Leadership detection; Algorithmic management; Organization & job fit; Talent retention

Journals: Management Science, Information Systems Research, Journal on Computing, MIS Quarterly, Academy of Management Journal, Academy of Management Review, Organization Science, Journal of International Business Studies, Strategic Management Journal

Supply Chain Analytics

Multimedia, Computer vision and Information Retrieval for Improv.; City Livability; Multimodal interactive learning; Conversational Search; Geometric Deep Learning; Legal information retrieval; Recommendation Systems; Optimization for and with machine learning; Robust optimization (Optimization of food supply of World Food Programme); Stochastic systems (Appointment scheduling in healthcare); Explainable machine learning (Rule-based methods and counterfactual explanations)

Journals: Operations Research, Journal of Operations Management, Manufacturing and Service Operations Management, Production and Operations Management

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ADMISSIONS

Requirements

Bachelor or Master's Degree
High GPA (> 7.5/10)
GMAT >700, GRE >160, TOEFL
(not for students with Dutch degrees)
Passion for Business, Data Science & Research
Programming skills

Deadlines

December 1, 2023	Scholarships
February 1, 2024	non-EU students
Rolling Adm - June 15, 2024	EU students

www.businessdatascience.nl

Check the website for more info on

- How to contact us
- Admissions & Scholarships
- Events
- Courses & Tracks

Sign up also for summer schools or individual courses

Summer schools or Courses in:

- Deep Learning
- Reinforcement Learning
- Machine Learning
- Natural Language Programming
- Foundation of Data Analysis & Machine Learning in Phyton

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