






MSc Data Science

	Critical and innovative thinking 	Collaboration and management 	Design and programming 	Digital literacy and flexibility 	Sustainability and ethics 
Description of skills	Identify stakeholder needs, desires, and contexts. Know how to address issues with IT-technology and create desirable, feasible, and viable solutions in a scientific way. Ability to critically reflect on solutions and their implications.	Build the right business model, products, IT strategies and governance processes to develop a viable business or accelerate an existing business. Ability to productively work with people from diverse backgrounds, disciplines, and contexts.	Design high quality digital services, experiences, platforms, hardware and software technologies fitting for the task, the users, and the context. Know what coding is and implies, and/or ability to code.	Effectively make sense of information technologies to identify, evaluate, and create content and successfully communicate information and ideas. Ability to adapt swiftly to rapidly shifting trends in a changing ecosystem.	Aware of the potential and challenges of digitalization for humans, organizations, societies, and nature. Demonstrate social and societal responsibility, creativity and originality to ensure sustainable and secure IT solutions.
Programme-specific skills	Design and develop algorithmic solutions to solve cutting-edge problems in data science Combine and select appropriate data analysis methods in the light of existing theory, and rigorously evaluate proposed solutions.	Independently initiate collaboration and work professionally with both data science peers and others in complex and inter-disciplinary contexts.	Apply state-of-the-art algorithms to implement and develop software solutions for data analysis.	Communicate, visualize and discuss acquired data-driven knowledge clearly with peers and non-specialists Take responsibility of own professional development based on theoretical knowledge and practical experience to advance and adapt own competencies to future needs.	Assess data science solutions by taking ethics, accountability, fairness and sustainability into account.



Lead data scientist, data architect, data engineer, data analyst, data science consultant, data pipeline architect, business intelligence specialist.



PhD in Computer Science, Data Science, Network Science, Data Systems, Natural Language Processing