








MSc Computer 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	Invent, construct and apply computational models. Assess limits and opportunities of information technology. Deploy cutting-edge programming technologies.	Communicate clearly and effectively with other IT experts as well as people from non-IT disciplines. Apply software engineering principles to design, plan, and manage software projects.	Develop software in a mainstream programming languages. Know and apply advanced principles of databases, algorithms, concurrent and parallel programming. Know and apply basic principles of security.	Quickly learn new programming languages in all paradigms (imperative, logic, functional programming) and programming frameworks. Deploy cutting-edge programming technologies. Take responsibility of own professional development based on theoretical knowledge and practical experience to advance and adapt own competencies to future needs.	Understand and assess challenges regarding privacy, security and ethics for a given technical solution.

 Data science role in industries with working with large data sets (e.g., finance, retail). IT project manager or IT product owner. Software developer or software engineer. IT consultant

 PhD / researcher in Computer Science.