CS Specialisation: Software Engineering

Software engineering today is more and more diversifying: contract development and in-house development has long been complemented by generic software product development and implementation. The provisioning of software as services via cloud servers again changes the game. Agile development is complemented by continuous software engineering and the DevOps model.

The specialisation will not only introduce the candidates to current software engineering methods and practices but enable them to relate to future technical as well as to methodological developments.

This specialisation enables you to

- Analyse, discuss and relate current research in software engineering to practical problems at hand.
- Empirically investigate software engineering products and practices and report about the findings reflecting on relevant concepts from research literature.
- Design software and systems architectures to address functional and non-functional requirements and guide the implementation of the designed architecture.
- Identify practice problems and discuss potential remedies based on research literature.
- Evaluate techniques, tools and methods with respect to the software requirements and development context.
- Guide the appropriation of the adoption and adaption of software techniques, tools and methods.

Career Prospects

This specialisation aims to prepare you to take software engineering and software architect jobs in major software houses and consultancies (business software, administrative software, finance, etc). The emphasis on adoption and adaption of techniques, methods and tools is meant to prepare you to take on a position where you can guide the selection and adoption of techniques and methods.

Prerequisites

Besides a B.SC. in Computer Science or similar, students are expected to have read an introductory course on Software Engineering.
In general, the specialisation requires willingness to both, work with the systematic exploration and implementation of the technical design of software, and explore how methods and processes support the cooperation towards high quality software.