CS 750: Computer-Aided Software Engineering

Objectives

- Understand the theoretical aspects of automated software engineering methods.
- Demonstrate the knowledge of the existing automated software engineering methods.
- Demonstrate the knowledge of applying automated software engineering methods in software development and maintenance.

Prerequisites

- CS 487.

Syllabus

- Automated support for analysis and design methods
- Automated support for modeling methods
- Automated model checking methods
- Automated code generation methods
- Automated static analysis methods
- Automated dynamic analysis methods
- Automated test generation methods
- Automated test execution
- Automated restructuring methods
- Automated re-factoring methods
- Reverse Engineering and Re-Engineering
- Round-Trip Engineering
- Automated regression testing
- Automated test prioritization methods

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