Analyzing Software using Deep Learning

Introduction (Part 2)

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Overview

■ Motivation
  □ What the course is about
  □ Why it is interesting
  □ How it can help you

■ Organization
  □ Lectures and final exam
  □ Course project

■ Basics
  □ Program analysis
  □ Deep learning
Organization

- Ten lecture modules
- Reading material and tutorials
- Course project
  - May 22: Introduction of project
  - Weekly office hours
  - July 17: Submission of project
  - July 20–24: Presentations of projects
- Written exam
**Grading**

**50% written exam**
- Content of lectures and reading material
- Open book, one hour
- Will test your understanding, not your memory

**50% course project**
- Originality of your approach
- Effectiveness of your implementation
- Code quality and documentation
- Oral presentation
Ilias

Platform for discussions, in-class quizzes, and sharing additional material

- Please register for the course
- Use it for all questions related to the course
- Messages sent to all students go via Ilias

https://ilias3.uni-stuttgart.de/goto Uni Stuttgart crs 1881382.html
Learning Material

There is no script or single book that covers everything

- Slides and hand-written nodes:
  Available with the lectures
- Pointers to papers, book chapters, and web resources
Course Project

- Individual project
- Same task for everybody
- Design, implement, and evaluate a learning-based program analysis
- Based on existing libraries and frameworks
  - Python 3
  - Pytorch framework for machine learning
- More details on May 22