האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Formal Verification of Deep Learning Seminar - 67695

Last update 04-08-2022

HU Credits: *2*

Degree/Cycle: *2nd degree (Master)*

Responsible Department: *Computer Sciences*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *English and Hebrew*

Campus: *E. Safra*

Course/Module Coordinator: *Guy Katz*

Coordinator Email: *guykatz@cs.huji.ac.il*

Coordinator Office Hours: *By appointment*

Teaching Staff:

Prof Katz Guy

Course/Module description:
A seminar in which the students present papers that survey the field of formal verification of deep learning, including a survey of different verification methods based on constraint solving, abstract interpretation, complete and incomplete methods, etc.

Course/Module aims:
To understand advanced formal verification techniques for deep learning

Learning outcomes - On successful completion of this module, students should be able to:
Understand different methods for formal verification of deep learning, and their advantages and disadvantages

Attendance requirements(%):
80%

Teaching arrangement and method of instruction: Lectures given by the lecturer and students

Course/Module Content:
Verification methods based on Satisfiability Modulo Theories solvers, linear programming solvers, Lipschitz constant, abstract interpretation, and approximations

Required Reading:
None

Additional Reading Material:

Grading Scheme:

Additional information:

The course may be given in English