

Logic and Modelling

Todd Davies

October 9, 2014

Introduction

This is a unique course developed at the University of Manchester. It explains how implementations of logic can be used to solve a number a number of problems, such as solving hardest Sudoku puzzles in no time, analysing two-player games, or finding serious errors in computer systems.

Aims

This course intends to build an understanding of fundamentals of (mathematical) logic as well as some of the applications of logic in modern computer science, including hardware verification, finite domain constraint satisfaction and verification of concurrent systems.

Additional reading

Contents