

Multi-Agent Programming Contest 2016

The Python-DTU Team

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Abstract. We provide a brief description of the Python-DTU system, including the overall system design and the tools that we plan to use in the agent contest.

Introduction

The name of our team is Python-DTU. We participated in the contest in 2009 and 2010 as the Jason-DTU team [1,2], in 2011 and 2012 as the Python-DTU team [3,4] and in 2013 and 2014 as the GOAL-DTU team [5].

The members of the team are as follows:

- Jørgen Villadsen, PhD
- Andreas Halkjær From, BSc student
- Salvador Jacobi, MSc student
- Nikolaj Nøkkentved Larsen, MSc student

We are affiliated with DTU Compute (short for Department of Applied Mathematics and Computer Science, Technical University of Denmark (DTU) and located in the greater Copenhagen area).

The main contact is associate professor Jørgen Villadsen, DTU Compute, email: jovi@dtu.dk

We expect that we will have invested approximately 400 man hours when the tournament starts.

System Analysis and Design

We have chosen a clean Python-only implementation strategy.

We have chosen not to use any existing multi-agent system methodology.

We do not plan to distribute the agents on several machines.

We plan to use a centralized solution.

Software Architecture

We use the Python programming language.

We use a number of different Python development platforms.

We plan to use a suitable Linux system as the runtime platform.

We plan to use a custom pathfinding algorithm tweaked for this domain.

References

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More information about the Python-DTU team is available here:

<http://people.compute.dtu.dk/jovi/MAS/>