Advice and Guidance on MSc Projects HT19

Please note that a project registration form must be submitted to us by no later than **Monday of week 7, Hilary Term (25 February 2019)**.

In addition to this, you will need to submit a project proposal. The project proposal must be handed in to Tim Jones no later than **Monday of week 1, Trinity Term (29 April 2019).**

Available projects can be found here:

http://www.cs.ox.ac.uk/teaching/studentprojects/MSCinCS

Project Registration

You should submit the registration form with either a single project title, together with a signature of the supervisor, or a list of at least three projects for which you have (or are doing) the stated prerequisites. We would encourage you to talk to potential supervisors and select a specific project if possible. However, if you are not able to do this, then the Projects Committee will endeavour to find a suitable person to supervise one of the projects you have listed. If you do supply a list projects you are interested in, then please make sure that they are selected from at least two different possible supervisors.

Although some students do projects that are jointly supervised with another department you should remember that the project has to be relevant to computer science and should demonstrate your understanding and ability to exploit and integrate the material you have learnt from the courses you have taken.

Please note the regulations stipulate that you must demonstrate a link between your project and the taught part of the course.

In making your choice of project, you may wish to look at previous projects held in the Library and at http://www.cs.ox.ac.uk/msctheses

Below are some of the projects that were awarded a distinction in the MSc in Computer Science in 2015, 2016 and 2017:

Student name	Year	Project title
Al tabash, Kholood	2017	Insider Threat: Visualisation and Statistical Analysis
Berillon, Cecile	2017	Bridging the gap between block-based and text-based programming: A new programming language and development environment for BBC micro:bit
Bhatti, Shehroze	2016	Playing Doom with Deep Reinforcement Learning
Bigourdan, Pierre-Yves	2016	Distributed and Multi-Threaded Learning of Regression Models
Boisseau, Guillaume	2017	Understanding Profunctor Optics: a Representation Theorem
Campbell, Simon	2015	Non-uniformities in the RC4 Stream Cipher
Chan, Iat	2015	Input Method Engine by Long Short Term Memory Recurrent Neural Network
Edwards, Davidson	2016	Prototyping a Web-based Framework to Interface with Human Resource Allocation Algorithms and Compare Human Resource Assignments
Falcomer-Dawson, Leo	2017	Matching Algorithms for Discrete-Time Stochastic Arrivals in the Unit Interval
Feng, Qixuan	2017	A Deep Learning Approach to Personalised Risk Scoring For Critical Care Prognosis
Funke, Ignacio	2016	The Span Construction Interpretations and Applications
Garriga alonso, Adrià	2017	Probability density imputation of missing data with Gaussian Mixture Models
Giunchiglia, Eleonora	2017	Deep Learning for Survival Analysis
Gligic, Luka	2017	Deep Learning for Medical Information Extraction
Han, Dongge	2016	Mixed Strategy Nash Equilibria in Boolean Games
Heidemann, Lukas	2017	Visualization and Verification of Geometrical Proofs
Hez, Eduard	2017	Bitcoin mining games

Hunter, David	2016	Improving Exploration in Deep Reinforcement Learning
Jin, Lin	2015	Communication Efficient Distributed Optimization
Lezcano casado, Mario	2017	Compiled Inference with Probabilistic Programming for Large-Scale Scientific Simulations
Li, Richard	2017	Data leakage in organisations - Risk exposure from email headers
Lind, Christine	2016	Wearable Sensors for Post-Op Joint Rehabilitation
Liu, Siqi	2016	txt2calories: Nutrition Estimation via Natural Languages
Mikšys, Laurynas	2017	Real-Time Object Shape Prediction in Images
Moscholios, Nicolaos	2016	Automated Visualised Translation from English to British Sign Language
Mossalam, Hossam	2016	Multi-Objective Deep Reinforcement Learning
Ocampo, Ernesto	2016	A Fast Molecular Double Docking Algorithm for Catalysis Prediction
Penman, Richard	2016	Web Data Extraction Optimization: From User Interaction To Web Server Communication
Perez Orozco, Bernardo	2015	Learning relational structures from birdsong
Prastitis, Angelos	2016	Inconsistency-Tolerant Query Answering On Probabilistic Databases
Rathje, William	2016	A Rapid Method for Constructing Perceptually Uniform Color Spaces from User Surveys
Sadde, Alberto	2016	Consolidation of Haskell Programs Semantic fusion of maps, filters and folds
Samvelyan, Mikayel	2017	Factored Value Functions for Deep Multi-Agent Reinforcement Learning
Schleich, Maximilian	2015	Learning Regression Models over Factorized Joins
Schwarz, Max Jakob	2017	Deep convolutional neural networks for housing price predictions
Sher, Varshita	2015	An Empirical Study on Perception of Correlation using Scatter Plots
Sherman, Avraham	2017	June Bug Building and Analyzing Physical 3D Models from Medical Scans
Snorrason, Arni	2016	Visual Representation of Constraint Satisfaction Problems
Tena Cucala, David	2016	Datatype Reasoning in PAGOdA
Tissier, Antoine	2016	Computer models and classification algorithms for drug cardiac assessment
Vaz, Rayner	2017	Single View Depth Inference of Human Body Shape from Deep Neural Networks
Wells, Ruth	2017	Learning Linear Regression Models using Ring Computation over Factorised Databases
Wheatley, Jack	2017	Novel approximation bounds based on bisimulations for probabilistic model checking of Markov chains
Whitby, Max	2015	The Construction and Verification of Asynchronous Components Built from Chemical Reaction Networks
Wijesuriya, Viraj	2015	An integrated approach to model learning and model verification
Yang, Zhao	2017	Attention Networks for Deep Reinforcement Learning
Zabrodskiy, Alexander	2017	A parallel version of Tarjan's Algorithm
Zakrzewski, Tomasz	2017	Using machine learning to predict social media post performance
Zhelezniak, Vitalii	2016	Boosting Radial Threshold Classifiers

Please make sure that you also read the section in the MSc Course Handbook on projects.

Please also be aware that in Trinity Term there will be a session on writing skills. All students are expected to attend as this will provide you with helpful guidance for your project. Details on the time and location will be provided nearer to the time.

Project proposals fall into two categories: there are specific proposals put forward by members of the department which can be discussed with the academic concerned, and some members of the department have put forward general areas in which they would be prepared to supervise projects.

If you have a project of your own in mind you can discuss it with the academic whose interests fall into this area.