

Master Project (MSc Online/Tutored E-Learning)
School of Computer Science

Initial Project Idea

Section 1. Your Personal Details

Your First Name(s): Colin

Your Family Name: Younge

Your SRN: 16018361

Your MSc Study Route (CS, DSN, ELT, or SE): CS

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Section 2. Your Project Idea

2.1 Project Title

Enhancement of search results by machine learning, in the context of an enterprise knowledge base application.

2.2 Project Description

My employer, Origin Frames Ltd, is a manufacturer of windows and doors seeking to improve the communication of technical information to sales and administrative staff in order to reduce errors. My proposal is to build an application to make existing communications and content more easily searchable, by taking advantage of machine learning techniques.

To date, machine learning has largely been employed by technology giants and start-ups, whose products are directly built on these technologies. This project would demonstrate the application and potential of this technology to support the work of the modern enterprise in other areas of the economy.

2.3 Project Tasks and Deliverables

- 1. Collate and catalogue existing technical content*
- 2. Have technical experts review the content and tag it appropriately*
- 3. Implement a machine learning algorithm to classify content with the respective tags*
- 4. Build an API and web / mobile application interface to query and display content*
- 5. Implement a machine learning algorithm to rank the content appropriately*
- 6. Have users perform searches, and train the algorithm by ranking the hits*
- 7. Take advantage of user feedback within the interface (i.e. reporting incorrect tags, ignoring the top results etc.) to continuously improve the algorithms*

Section 3. Supervisor

N/A