Assignment 2
Research Report

Due Date: Friday, May 7, 2020 End of Day

Assignment Overview

You have just been hired by one of our guest lecturers to work in their organisation. The first task they have given you is to advise them on the latest technique to improve/inform their work/approach. In this assignment, each student will write a research report for your new boss, which will recommend the state of the art techniques.

This assignment helps you improve your skills at navigating through and critically examining the scientific literature on a selected topic. It also trains you to think critically about research and how it can be applied to a problem.

Guest Talks

Name	Topic
Piyush Yadav (Insight)	Video Event Stream Processing
Petronel Bigioi (Xperi Corporation)	AI-driven Imaging at the Edge
Alastair McKinstry (ICHEC)	Climate and Weather forecasting: simulation and data
Maciej Dabrowski (Genesys)	AI-Powered omnichannel customer experience & contact center solutions
Gearóid Hynes (CitySwift)	Smart Scheduling for Mobility
Wassim Derguech (Future Mobility Campus Ireland)	Smart Infrastructure for Mobility
Seán O'Riain (Fidelity Investments)	Delivering Data-Driven Innovation
Enda Ridge (Google)	Forensics, retail and product analytics

Research Report Format

You are required to submit a research report (approximately 4-5 pages) specifying:

- **Guest Lecture:** Identify the guest lecturer you have joined
- **Assumptions:** Detail any assumptions you are making. These can include available data, computational resources, etc
- **2 Research Paper Reports:** You should identify two research papers that are relevant to the guest lecturers organization.

Each paper review should be two pages long, single-spaced, using 11-point font (~1200 words). Each paper report should provide the following:

- **Title, author, and publication venue of the paper:** Provide a full citation for the paper and include a link to a PDF.
- **Summary of the Approach** (one paragraph)**:** A short summary of the paper. This should be in your own words instead of copying the paper's abstract. This will demonstrate that you understand the paper.
- **Suitability of the paper for the Organisation:** Why is this paper suitable for the organisation? How does it align with their work/interests?
- **Strengths of the Approach** (one paragraph): What do you think are the strengths of the approach? These can include an interesting problem, innovative approach, performance, etc.
- **Weaknesses of the Approach** (several paragraphs): Discuss the shortcomings of the paper. Weakness can include assumptions, formulation, technical approach, explanation, reasoning, experimental setup, results, analysis, literature review, comparison with other work, etc.
- **Recommendation for use** (several paragraphs)**:** How can the organisation use this approach in their work? Detail how could it improve their current work?

The most important components of each report are the sections on the weakness of the paper and the recommendation for use. If you only write about what you have learned from the paper or comment on the writing, you are not critically evaluating the paper. Consider the weakness of this paper that the organisation should be aware of before they proceed with your recommendation. The recommendation for use shows your creative thinking skills for how the techniques can provide benefit for the organisation.

Submission

- Please put your report into a PDF document with name "YourName_ResearchReport.pdf", submit it via Blackboard
- Please note that all submissions will be checked for plagiarism. Plagiarism (from another student, or any other sources) are not allowed and will be treated seriously.
- Please verify the submitted file. Mistakes cannot be corrected once the deadline has passed.

Assignment FAQ (will be updated):
https://docs.google.com/document/d/1No8lkxJBTWhp8DPU7erWkRGgQzFBNi38VNDYKWT2kME/edit?usp=sharing