Template for Thesis Proposal (and Full Thesis)

Student name, student id, student email.

# Introduction

Write the introduction here. It should be motivated from a knowledge problem (i.e., something we do not know) from literature and deductively derive a research question. Practical and societal issues can serve as examples highlighting the need to address the knowledge problem.

# Background

The background section serves two purposes.

## First purpose

The first purpose is to define, delineate, and explain the necessary theoretical and phenomenological concepts of your work.

## Second purpose

The second purpose is to outline and summarize existing work on your specific research question, which again highlights a knowledge gap. If you work on a quantitative, empirical thesis, you can develop the hypotheses at the end of the background section.

# Methods

The methods describe how you want to address the research question. It should be grounded in established methods of the field, highlighting the necessary reference works from the literature. Applicable approaches for quantitative, empirical theses include survey, experiment, archival, web-scraped data as samples and econometrics analysis, e.g., regression, causal machine learning and computational approaches for analysis. Qualitative, empirical methods typically include the collection and analysis of interviews, qualitative (open-text) surveys, or netnographies (i.e., data collection from the internet).

# Expected Contribution

The expected contribution section should briefly outline what results we can expect from your work and why these are original and important.

# Schedule / Timeline

Most (all) students underestimate the workload required to execute research and write it up. Getting acquainted with the literature and following rigorous methodological standards requires significantly more effort than writing up your 10-page project report. You need to identify, read, understand, synthesize and interpret the existing state of the art in theory, phenomenon, and methods for your proposal. Then you need to apply everything in during your thesis work. Hence, a schedule and timeline upfront let us discuss that you will probably need more time for all the steps.

# Tables & Images

All tables and images should have labels and be referenced in the text. An example is Table 1. The table content font can be 10pt, 11pt, or 12pt.

|  |  |  |
| --- | --- | --- |
| **Classifier** | **Accuracy on RAVDESS** | **Accury on CREMA-D** |
| Logistic Regression | 0.63 | 0.58 |
| Decision Tree | 0.38 | 0.35 |
| Random Forest | 0.53 | 0.52 |

Table . Validation of machine-learning-based emotion prediction.

# References examples (should be APA7)

Abramov, S., Korotin, A., Somov, A., Burnaev, E., Stepanov, A., Nikolaev, D., & Titova, M. A. (2022). Analysis of Video Game Players’ Emotions and Team Performance: An Esports Tournament Case Study. *IEEE Journal of Biomedical and Health Informatics, 26*(8), 3597–3606. https://doi.org/10.1109/JBHI.2021.3119202

Agarwal, A., Priyadarshi, P., Sinha, S., Gupta, S., Jangra, H., Kumaraguru, P., & Garimella, K. (2024). Television Discourse Decoded: Comprehensive Multimodal Analytics at Scale. Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 4752–4763. https://doi.org/10.1145/3637528.3671532

Allison, P. D. (2014). Measures of Fit for Logistic Regression [Whitepaper]. Statistical Horizons LLC and the University of Pennsylvania.

Alter, A. L., Oppenheimer, D. M., Epley, N., & Eyre, R. N. (2007). Overcoming intuition: Metacognitive difficulty activates analytic reasoning. *Journal of Experimental Psychology: General, 136*(4), 569–576. https://doi.org/10.1037/0096-3445.136.4.569

Angrist, J. D., & Pischke, J.-S. (2009). Mostly Harmless Econometrics An Empiricist’s Companion. Princeton University Press.