

Project Proposal

**Data Mining:
Data Mining Project
with Dr. Qin Lv**



Master of Science in Data Science
UNIVERSITY OF COLORADO BOULDER



Learning objective: Propose your own data mining project and identify the key components to include.

Project Proposal

- What you plan to do
 - Not all information is available
 - Tentative, can change later
-
- What to include?

Project Title

- "Data Mining Project"
- Concise and informative
- Keywords to include
- (optional) acronym or codename

Abstract

- Aka: Executive Summary
- Brief summary of the project
- Usually 1-2 paragraphs

Introduction

- What is the problem?
- Why is it important?
- Limitations of existing solutions
- What is your (potential) contribution?

Related Work

- What has been done already?
- Group by category
 - E.g., tools, methods, results
- How your project builds upon prior work?
 - E.g., utilize, compare, improve, new knowledge

Proposed Work

- Datasets, tools
- Main tasks
 - E.g., statistical analysis, visualization
 - E.g., data preprocessing, warehousing
 - E.g., specific questions, patterns to explore/model

Evaluation

- Evaluation metrics
 - Effectiveness
 - Efficiency
- Experimental setup
- Methods to compare

Discussion

- Project timeline
 - When to finish what, current status
- Potential challenges
- Alternative approaches/backup plan

Conclusion

- Project summary
- (when finished) Key findings
- (when finished) Future work

What to Submit

- Proposal slides
- Proposal report

Proposal Slides

- 5-10 slides about your proposal
- Project title
- Problem statement, related work,
proposed work, evaluation, timeline
- **Style:** clean, large font, color, picture

Proposal Report (1)

➤ ACM proceedings template

<https://www.acm.org/publications/proceedings-template>

- Two-column format
- Word
- Latex or Overleaf: “sigconf” template

Proposal Report (2)

- Project title
- Abstract, introduction, related work, proposed work, evaluation, discussion, conclusion, references
- See KDD papers for example