



Medical Data Privacy and Ethics in the Age of Artificial Intelligence

Lecture 19: Project Proposal Presentation

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Rubric for 5-Minute Project Proposal Presentation (20 Points Total)

Category	5 points (Excellent)	4 points (Good)	2–3 points (Adequate)	0–1 point (Needs Improvement)
1. Project Introduction & Innovation	Clear, engaging explanation of the problem and goals; strong rationale; goals are innovative and impactful	Problem and goals are clear; rationale is mostly convincing; some signs of originality	Problem is somewhat vague or goals are routine; limited or unclear significance	Problem not explained or goals missing; lacks originality or relevance
Score				
1. Pilot Project & Results	Pilot study is clearly described; results are presented with meaningful insights; evaluation supports feasibility	Pilot is described with some results; evaluation is present but not very detailed	Basic pilot idea mentioned; results unclear or not well analyzed	No pilot described, or no results/evaluation shown
Score				
1. Extended Project & Timeline	Clear roadmap of next steps; realistic timeline; potential risks thoughtfully identified and mitigated	Steps and timeline are mostly clear; risks mentioned with some mitigation	Timeline or future work lacks detail or logic; risks are vague or missing	No clear plan or timeline; risks not considered
Score				
1. PowerPoint Design & Presentation Delivery	Slides are well-organized, visually appealing, with minimal text; presenter speaks clearly, confidently, and stays within time	Slides are organized and readable; minor visual or delivery issues; mostly on time	Slides are cluttered or inconsistent; speaker is hard to follow at times; time management issues	Slides are poorly designed or unreadable; presentation is confusing, rushed, or too long/short
Score				

5 mins

Judges:

H Jiang

S Xie

J Hou

Z Wan

Order	Team name	Title	Track
1	Awake without getting up (醒了不敢出被窝)	Explainability Analysis of Brain MRI Classification Models Using Grad-CAM	Transparency
2	DDL Fighters(DDL 斗士队)	MedGuard: Privacy Attacks & Mitigations for MedGemma on PAD-UFES-20	Privacy
3	SoloHealth AI / 单人小组	Auditing and Mitigating Demographic Bias in Large Language Models for Clinical Decision Support	Fairness
4	Allright Team (那就全对)	Evaluating Age and Gender Biases in Machine Learning Models for Chronic Kidney Disease Prediction	Fairness
5	联影F4 / UI-F4	Analysis of LLM Fairness Across Demographics	Fairness
6	Double(双人队)	Fairness Analysis and Bias Mitigation in Medical AI Systems — A Case Study of Diabetes Prediction Models	Fairness
7	L^4	Evaluating AI-based De-identification for Medical Data Privacy	Privacy
8	DeID.AI Team(智护团队)	LLM-Based De-identification of Clinical Text Using Synthetic PHI	Privacy
9	Deep Sink 深沉	Privacy-Preserving Data Publishing for Clinical Interviews	Privacy
10	Rookie	Explainable AI for Clinical Risk Stratification: SHAP Analysis of Deep Learning on the UCI Heart Disease Data	Transparency
11	Seven Words (七个字)	Explainability Assessment of Synthetic MRI	Transparency
12	THANK U Team (谢谢你小组)	Explainability Analyses of Brain Tumor Segmentation Model	Transparency
13	Transparent Minds (透明智能)	Interpretable Deep Learning-Based Compressive Sensing for Transparent MRI Reconstruction	Transparency
14	No Name 无名氏	Comprehensive Explainability Analyses of Medical AI: Multi-Disease Diagnosis Research Targeting Tabular and Imaging Data	Transparency
15	Privacy LLM Group	Medical Text De-identification via Fine-Tuned LLMs	Privacy
16	SGU (安全保卫队)	Release of Pathological Voice Data with Privacy Preservation	Privacy
17	Guardians Group	A Context-Aware De-identification Framework for Clinical Texts	Privacy

Readings due on Dec 24

- 1. Wiest IC, Leßmann ME, Wolf F, Ferber D, Treeck MV, Zhu J, Ebert MP, Westphalen CB, Wermke M, Kather JN. **Deidentifying Medical Documents with Local, Privacy-Preserving Large Language Models: The LLM-Anonymizer.** *NEJM AI*. 2025 Mar 27;2(4):Aldbp2400537.
<https://ai.nejm.org/doi/pdf/10.1056/Aldbp2400537>
- Optional
 - ❑ 2. Das BC, Amini MH, Wu Y. Security and privacy challenges of large language models: A survey. *ACM Computing Surveys*. 2025 Feb 10;57(6):1-39.)

Feedback Survey

- One thing you learned or felt was valuable from today's class & reading
- Muddiest point: what, if anything, feels unclear, confusing or "muddy"
- <https://v.wjx.cn/vm/ekU4f02.aspx>

BME2133 Class Feedback Survey



Semester Feedback Survey

- One thing you learned or felt was valuable from this course?
- Muddiest point: what, if anything, feels unclear, confusing or “muddy”?
- Will a customized AI agent help your learn?
- Time spent on learning after class?
- Takes around 10 minutes.
- Students who complete this survey will receive **0.5 bonus point** added to their quiz section, if applicable.
- <https://www.wjx.cn/vm/hX0mlro.aspx>

BME2133 Course Feedback Survey

