

## Consent Form for Research Participation

**Study Number:** e.g., IRB18-XXXX

**Study Title:** Leveraging LLMs to Protect Users Against Targeted Password Guessing

**Researcher(s):** Manaswi Raj, Harsh Sharma, Vibhor Dave

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. Your participation is voluntary.

**Purpose:** The purpose of this study is to evaluate the guessability of Large Language Model (LLM)-generated passwords compared to user-generated passwords. This research aims to determine whether LLM-generated passwords, especially when tuned to avoid common user patterns, offer improved resistance against targeted password guessing attacks. Insights from this study may inform better security practices in password generation.

**Procedures and Time Required:** If you agree to participate, you may be asked to complete tasks related to password generation and allow analysis of patterns in your previous passwords. The study may involve secure interactions with a password generation tool. The estimated time commitment is approximately 20 minutes.

**Financial Information:** Participation in this study will involve no cost to you. You will not be paid for participating in this study.

**Risks and Benefits:** Your participation in this study does not involve any risks beyond those of everyday life. Although there are no direct benefits to you, this research may contribute to improved password security practices, potentially benefiting the broader user community in reducing susceptibility to password-guessing attacks.

### Confidentiality:

- **Data Anonymization:** All personal identifiers will be removed from the data collected. Passwords or patterns used in this study will be anonymized to ensure there is no association with individual participants.
- **Data Storage:** Collected data will be securely stored on encrypted devices or within databases that are accessible only to authorized research personnel.
- **Access Control:** Only the research team will have access to identifiable information. De-identified data may be shared with collaborators, who will be required to adhere to strict confidentiality agreements.
- **Data Retention and Disposal:** Upon completion of the study, any identifiable data will be deleted within a specified period, while only anonymized information may be retained for future analysis.



- **Withdrawal of Consent:** Participants may withdraw their consent at any time. Upon request, all previously collected data from that individual will be permanently deleted, if feasible.
- **Mandatory Reporting:** In the event of a data breach or unauthorized access, participants will be notified as required by law to ensure full transparency.

### Contacts & Questions:

If you have questions or concerns about the study, you can contact the researchers at **Manaswi Raj** (+91 7763878917, [manaswiraj195@kgpian.iitkgp.ac.in](mailto:manaswiraj195@kgpian.iitkgp.ac.in)), **Harsh Sharma** (+91 8949534933, [harshsharma2024@gmail.com](mailto:harshsharma2024@gmail.com)), **Vibhor Dave** (+91 8980444125, [vibhor.dave03@gmail.com](mailto:vibhor.dave03@gmail.com)).

If you have any questions about your rights as a participant in this research, feel you have been harmed, or wish to discuss other study-related concerns with someone who is not part of the research team, you can contact the IIT Kharagpur Social & Behavioral Sciences Institutional Review Board (IRB): phone (773) 702-2915, email [sbs-irb@uchicago.edu](mailto:sbs-irb@uchicago.edu).

### Consent:

Participation is voluntary. Refusal to participate or withdrawing from the research will involve no penalty or loss of benefits to which you might otherwise be entitled. You will be provided a copy of this form. By signing below, you agree to participate in the research.

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**Participant's Signature**

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**Participant's Name (printed)**

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**Date**

### Optional Elements:

Yes

No

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Identifiable information from this study may be used for future research studies or shared with other researchers for future research without your additional informed consent.

Yes

No

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The researchers may retain your contact information in order to contact you in the future to see whether you are interested in participating in other research studies.