

Protected features in loans

what are protected features in banking domain for loan approval system

Great question. In lending, “protected features” (aka protected characteristics) are attributes you must **not** use to approve/deny or price credit (and you should guard against proxy use). For an India-focused loan approval system, treat the following as protected:

Core protected features in India (don't use in the model or business rules)

- **Religion / faith.**
- **Caste / tribe / community (e.g., SC/ST/OBC).**
- **Sex / gender, including transgender identity** (non-discrimination in access to services).
- **Place of birth / ethnicity / nationality** (don't discriminate on these grounds; KYC collection ≠/decision factor).
- **Disability / physical ability.**
- **Age** (avoid *unfair* discrimination; age can be used only for legal capacity/tenor policy, not to redline applicants).

Why: Indian fair-practice/customer-rights guidance used by banks commits to **no discrimination** on grounds like gender, age, religion, caste, and physical ability; broader constitutional and specific rights laws reinforce equal access to services.

Treat these as proxy-risk features (high chance of encoding protected traits)

- **Address / PIN code / geolocation**, neighborhood, distance-to-landmark.
 - **Language / mother tongue / surname / community markers.**
 - **School/college names, places of worship near home**, festival-based features.
 - **Device locale/timezone**, social graph, or demographic ad-segment tags.
- These can correlate strongly with religion, caste, ethnicity, or gender identity—avoid using them or prove they're necessary and non-discriminatory.

If you operate globally, add jurisdiction-specific protected classes

- **US (ECOA/Reg B):** race, color, religion, national origin, **sex, marital status, age, receipt of public assistance, exercise of consumer rights.**
- **UK (Equality Act 2010):** age, disability, gender reassignment, marriage/civil partnership, pregnancy/maternity, race, religion/belief, sex, sexual orientation.
- **EU (GDPR Article 9 “special categories” – treat as off-limits for modeling):** racial/ethnic origin, political opinions, religious/ philosophical beliefs, trade-union membership, genetic/biometric data, health, sex life/sexual orientation.

Practical guardrails

- **Blocklist** these fields (and obvious proxies) in your feature store + training/inference schemas.
- **Document legitimate uses** separately (e.g., age for contractual capacity/tenor; nationality only for KYC), ensuring they **don’t influence** credit risk directly.
- **Audit fairness:** keep a **segregated compliance dataset** (not used for training/inference) to evaluate disparate impact by protected groups, with strict access controls and lawful basis/consent where required.
- **Explainability check:** verify top SHAP drivers aren’t proxies for protected traits; if they are, mitigate (drop/transform, reweighing, constraints).
- **Policy alignment:** mirror your bank’s Fair Practices Code and Customer Rights Policy in model governance docs and approval workflows.

If you want, I can turn this into a short “allow/avoid/proxy-risk” table tailored to your current feature list.

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