DataGuardi
Enterprise Privacy Complianc

AI Model Security Certification

SECURITY LEVEL: B (Needs Improvement)

Risk Analysis Report • Generated on 2025-05-11 21:12:32

Executive Summary

OFFICIAL CERTIFICATION STATEMENT

This document certifies that a comprehensive AI model risk assessment has been conducted on **2025-05-11 21:12:32** by **DataGuardian Pro**.

The assessment evaluated a **ONNX** model from **Repository URL** for privacy risks, bias concerns, and explainability issues in accordance with industry best practices and regulatory guidelines.

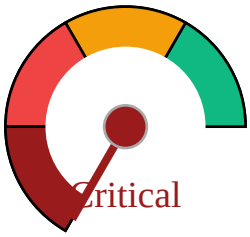
The analysis identified a total of **14** findings across multiple risk categories, resulting in a risk score of **100/100**.

CERTIFICATION DETAILS

Certificate ID:	AIMOD-20250511-479c7b
Model Type:	ONNX
Security Level:	B (Needs Improvement)
Certification Date:	2025-05-11 21:12:32
Validity Period:	1 year from issue date

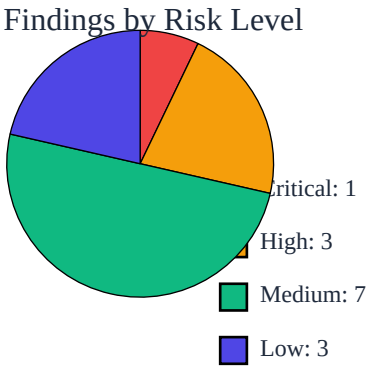
Repository URL:	https://github.com/onnx/models
Branch:	main

Risk Assessment



Score: 100/100

Key Risk Metrics



Metric	Status	Risk Level
Personal Data in Model	✓ Detected	High
Bias/Fairness Issues	✓ Detected	High
Explainability Score	31/100	High

Detailed Findings

Open Source Compliance

ID	Type	Description	Risk Level
REPO-LICENSE...	License Detecti	Repository has a Apache License 2.0 license	Low

Rights Management

ID	Type	Description	Risk Level
REPO-OPTOUT-...	Opt-Out Mechani	Repository has a .gitignore file for excluding content	Low

Transparency

ID	Type	Description	Risk Level
REPO-DOCS-7a...	Documentation	Repository has documentation files that may contain attribution guidelines	Low

Architecture Analysis

ID	Type	Description	Risk Level
AIARCH-91a70d	Model Architect	ONNX model architecture analyzed for privacy risks	Medium

Model Structure

ID	Type	Description	Risk Level
AIARCH-ONNX-...	ONNX Model Stru	ONNX model structure evaluated for exposed internal representations	Medium

PII Detection

ID	Type	Description	Risk Level
AIPII-TRAIN-...	Training Data P	Model may contain unauthorized personal information in training data	High
AIPII-OUTPUT...	Output PII Leak	Model may leak personal information in outputs through memorization	Critical

Model Bias

ID	Type	Description	Risk Level
AIBIAS-DI-4e...	Disparate Impac	Model demonstrates potential disparate impact across protected groups	High

Explainability

ID	Type	Description	Risk Level
AIEXP-FI-f8201d	Feature Importa	Assessment of feature importance transparency	Medium
AIEXP-MI-c0de1d	Model Interpret	Overall model interpretability assessment for ONNX	Medium

GDPR Compliance

ID	Type	Description	Risk Level
AICOMP-5e0c86	Compliance Asse	Model requires GDPR compliance assessment for Global	Medium

Technical Compliance

ID	Type	Description	Risk Level
AICOMP-ONNX-...	ONNX Model Expo	Assessment of ONNX model export for regulatory compliance	Medium

PII in Training

ID	Type	Description	Risk Level
AICOMP-TRAIN...	Training Data A	Potential PII exposure in training data requires documentation	High

Transparency Requirements

ID	Type	Description	Risk Level
AICOMP-DOC-5...	Model Documenta	Assessment of model documentation for transparent use	Medium

Expert Recommendations

Privacy & Compliance

- Implement data minimization techniques to remove unnecessary PII from the model
- Conduct a comprehensive Data Protection Impact Assessment (DPIA)
- Apply differential privacy with appropriate epsilon values for training data

Model Security

- Implement model API access controls with proper authentication
- Apply rate limiting to prevent model extraction attacks
- Establish monitoring for adversarial inputs and unusual query patterns
- Maintain current privacy and security controls
- Continue monitoring model performance and behavior
- Implement a regular model review process

Fairness & Ethics

- Implement algorithmic fairness techniques like adversarial debiasing
- Ensure demographically balanced representative training datasets
- Apply fairness constraints during model training process

Explainability

- Implement SHAP or LIME for local explanations of individual predictions
- Consider more interpretable model architectures where appropriate
- Create model cards documenting training data, performance metrics and limitations

High Priority Actions

- Address PII Detection: Model may contain unauthorized personal information in training data
- Address PII Detection: Model may leak personal information in outputs through memorization
- Address Model Bias: Model demonstrates potential disparate impact across protected groups

Conclusion

This AI model risk assessment identified 14 findings with a total risk score of 100/100. The model has personal data privacy concerns, exhibits bias issues, and has an explainability score of 31/100. By addressing the recommendations provided in this report, you can improve the model's compliance, fairness, and transparency.