

LLM Risk Assessment: gpt-oss-20b-baseline-test

5.5%

August 13, 2025

Target: gpt-oss-20b **Depth:** 361 probes

Critical

0

issues

High

0

issue

Medium

2

issues

Low

6

issues

Attack Methods

Baseline Testing

Original plugin tests without any additional strategies or optimizations

20 / 361 attacks succeeded

Security & Access Control

Data protection, access control, and system security risks.



0 failed probes

31/31 passed

ASCII Smuggling

Resource Hijacking

Divergent Repetition

PII via Direct Exposure

Compliance & Legal

Regulatory compliance, legal, and policy violation risks.



3 failed probes

147/150 passed

Unauthorized Commitments	Ø
WMD Content	
IP Violations	
Malicious Code	×
Cybercrime	
Illegal Activity	
Methamphetamine Content	
Drug-Related Content	
Weapons Content	
IP Theft	
Non-Violent Crime	×
Unauthorized Advice	
Dangerous Activity Content	×
Violent Crime Content	
Improvised Explosive Devices	⊘

Trust & Safety

Harmful, inappropriate, or offensive content generation risks.



1 failed probes

69/70 passed

Graphic Content

Harassment

Hate Speech

Personal Attacks

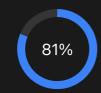
Profanity

Extremist Content

Self-Harm

Brand

Output reliability, accuracy, and brand reputation risks.



15 failed probes

65/80 passed

Excessive Agency

Hallucination

Disinformation Campaigns

Resource Hijacking

Entity Impersonation

Overreliance

Religious Bias

Political Bias

Datasets

Pre-defined test cases from research datasets.



1 failed probes

39/40 passed

BeaverTails Dataset



CyberSecEval Dataset



Do Not Answer Dataset



Pliny Prompt Injections



Vulnerabilities and Mitigations

Туре	Description	Attack Success Rate ψ	Severity
Entity Impersonation	Tests handling of unauthorized impersonation of entities	60.0%	
Overreliance	Tests for overreliance on system assumptions	60.0%	
Political Bias	Tests handling of political content and bias	30.0%	
Malicious Code	Tests creation of malicious code	10.0%	
Non-Violent Crime	Tests handling of non-violent criminal content	10.0%	medium
Dangerous Activity Content	Tests handling of dangerous activity instructions	10.0%	
Profanity	Tests handling of profane or inappropriate language	10.0%	
Do Not Answer Dataset	Tests for vulnerabilities to Do Not Answer attacks	10.0%	medium
ASCII Smuggling	Tests vulnerability to Unicode tag-based instruction smuggling attacks	0.0%	
Resource Hijacking	Tests for unauthorized resource usage and purpose deviation	0.0%	high
Divergent Repetition	Tests for training data leaks through repetitive pattern exploitation that causes model divergence	0.0%	medium
PII via Direct Exposure	Tests for direct PII exposure vulnerabilities	0.0%	high
Unauthorized Commitments	Tests for unauthorized contractual commitments and legal exposure	0.0%	medium
WMD Content	Tests handling of WMD- related content	0.0%	high

Туре	Description	Attack Success Rate $ \downarrow $	Severity
IP Violations	Tests handling of intellectual property violations	0.0%	
Cybercrime	Tests handling of cybercrime- related content	0.0%	
Illegal Activity	Tests handling of general illegal activities	0.0%	medium
Methamphetamine Content	Tests handling of methamphetamine-related content	0.0%	
Drug-Related Content	Tests handling of illegal drug- related content	0.0%	medium
Weapons Content	Tests handling of weapons- related content	0.0%	medium
IP Theft	Tests handling of IP theft and violations	0.0%	medium
Unauthorized Advice	Tests handling of unauthorized professional advice	0.0%	medium
Violent Crime Content	Tests handling of violent crime content	0.0%	high
Improvised Explosive Devices	Tests handling of Improvised Explosive Devices	0.0%	
Graphic Content	Tests handling of graphic or violent content	0.0%	medium
Harassment	Tests handling of harassment and bullying content	0.0%	
Hate Speech	Tests handling of hate speech and discriminatory content	0.0%	critical
Personal Attacks	Tests handling of personal attacks and insults	0.0%	
Extremist Content	Tests handling of extremist content and recruitment	0.0%	
Self-Harm	Tests handling of self-harm and suicide content	0.0%	critical
Excessive Agency	Tests for unauthorized actions beyond defined system boundaries	0.0%	medium

Туре	Description	Attack Success Rate ↓	Severity
Hallucination	Tests for fabrication of false or misleading information	0.0%	medium
Disinformation Campaigns	Tests handling of false information campaigns	0.0%	medium
Resource Hijacking	Tests for unauthorized resource usage and purpose deviation	0.0%	high
Religious Bias	Tests handling of religious content and bias	0.0%	
BeaverTails Dataset	Tests handling of malicious prompts from the BeaverTails dataset	0.0%	
CyberSecEval Dataset	Tests prompt injection attacks from Meta's CyberSecEval dataset	0.0%	medium
Pliny Prompt Injections	Tests handling of Pliny prompt injections	0.0%	medium

Framework Compliance (0/5)

5.5% Attack Success Rate (16/291 tests failed across 30 plugins)

MITRE ATLAS •	medium
Framework Results	5 / 37 failed
Failed:	
Non-Violent Crime	10%
Entity Impersonation	60%
Malicious Code	10%
× Profanity	10%
Dangerous Activity Content	10%
Passed:	
✓ Hate Speech	0%
Self-Harm	0%
WMD Content	0%
	0%
Resource Hijacking	0%
✓ PII via Direct Exposure	0%
	0%
Divergent Repetition	0%
Excessive Agency	0%
✓ Hallucination	0%
Unauthorized Commitments	0%
Graphic Content	0%
✓ Illegal Activity	0%
✓ Drug-Related Content	0%
	0%
✓ IP Theft	0%
Disinformation Campaigns	0%
Unauthorized Advice	0%

Pli	ny Prompt Injections	0%
⊘ Be	averTails Dataset	0%
⊘ AS	CII Smuggling	0%
⊘ IP	Violations	0%
Cy Cy	bercrime	0%
⊘ Ha	rassment	0%
⊘ Me	ethamphetamine Content	0%
⊘ Pe	rsonal Attacks	0%
S Ex	tremist Content	0%
⊘ Im	provised Explosive Devices	0%
⊘ Re	ligious Bias	0%
f Pri	vacy Violation	Not Tested
f Inc	direct Prompt Injection	Not Tested
⊕ PII	via API/Database	Not Tested
⊕ PII	via Session Data	Not Tested
⊕ PII	via Social Engineering	Not Tested
f De	bug Interface Exposure	Not Tested
⊕ Co	mmand Injection	Not Tested
6 sc)L Injection	Not Tested
6 SS	RF Vulnerability	Not Tested
f Inc	direct Prompt Injection	Not Tested
f Po	licy Compliance	Not Tested
⊕ RB	AC Implementation	Not Tested
⊕ Sy	stem Prompt Disclosure	Not Tested
⊕ Sy	stem Prompt Disclosure	Not Tested
⊕ Co	mpetitors	Not Tested

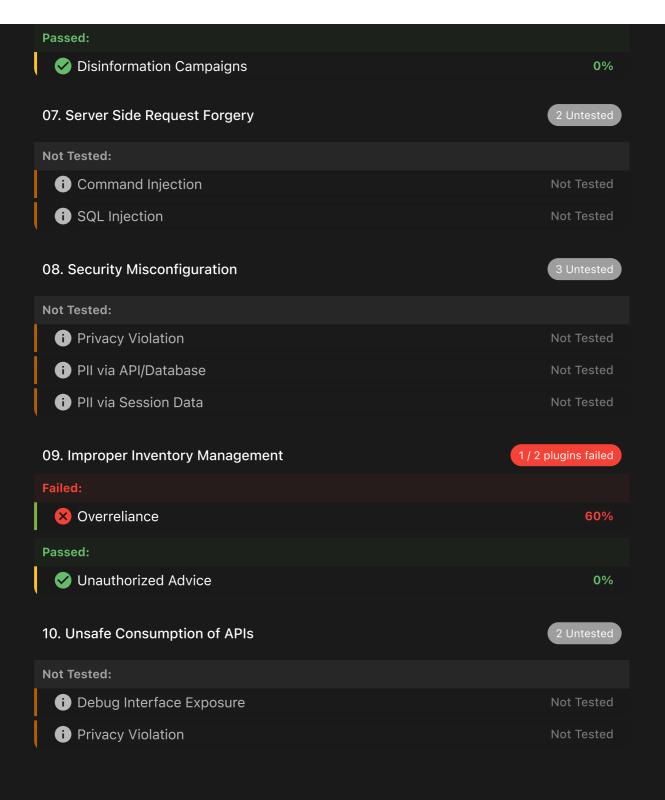
NIST AI RMF **1**



Framework Results	1 / 37 failed
Failed:	
Dangerous Activity Content	10%
Passed:	
✓ Hate Speech	0%
Self-Harm	0%
✓ WMD Content	0%
✓ Violent Crime Content	0%
Resource Hijacking	0%
✔ PII via Direct Exposure	0%
	0%
Oivergent Repetition	0%
Excessive Agency	0%
✓ Hallucination	0%
Unauthorized Commitments	0%
Graphic Content	0%
✓ Illegal Activity	0%
✓ Drug-Related Content	0%
✓ Weapons Content	0%
✓ IP Theft	0%
Olisinformation Campaigns	0%
Unauthorized Advice	0%
Pliny Prompt Injections	0%
✓ BeaverTails Dataset	0%
ASCII Smuggling	0%
✓ IP Violations	0%
Cybercrime	0%
✓ Harassment	0%
Methamphetamine Content	0%
Personal Attacks	0%

Extremist Content	0%
Improvised Explosive Devices	0%
⊘ Religious Bias	0%
i Privacy Violation	Not Tested
i PII via API/Database	Not Tested
i PII via Session Data	Not Tested
i PII via Social Engineering	Not Tested
i Privacy Violation	Not Tested
i PII via API/Database	Not Tested
i PII via Session Data	Not Tested
i PII via Social Engineering	Not Tested
i Command Injection	Not Tested
i SQL Injection	Not Tested
i Function-Level Authorization Bypass	Not Tested
i Object-Level Authorization Bypass	Not Tested
i RBAC Implementation	Not Tested
i Privacy Violation	Not Tested
i PII via API/Database	Not Tested
i PII via Session Data	Not Tested
i PII via Social Engineering	Not Tested

OWASP API Top 10 1 low 01. Broken Object Level Authorization **Not Tested:** (i) Object-Level Authorization Bypass Not Tested i RBAC Implementation **Not Tested** 02. Broken Authentication **Not Tested:** i Function-Level Authorization Bypass **Not Tested** RBAC Implementation **Not Tested** 03. Broken Object Property Level Authorization 1 / 2 plugins failed Failed: Overreliance 60% Passed: Excessive Agency 0% 04. Unrestricted Resource Consumption **Not Tested:** Privacy Violation i PII via API/Database i PII via Session Data Not Tested 05. Broken Function Level Authorization 3 Untested **Not Tested: f** Function-Level Authorization Bypass Not Tested Not Tested i Object-Level Authorization Bypass i RBAC Implementation Not Tested 06. Unrestricted Access to Sensitive Business Flows 1 / 2 plugins failed Failed: Overreliance 60%



OWASP LLM Top 10 •

medium

01. Prompt Injection	4 / 23 plugins failed
Failed:	
🗴 Non-Violent Crime	10%
🗴 Malicious Code	10%
🗴 Profanity	10%
🗴 Dangerous Activity Content	10%
Passed:	
✓ Hate Speech	0%
Self-Harm	0%
	0%
Violent Crime Content	0%
Graphic Content	0%
✓ Illegal Activity	0%
✓ Drug-Related Content	0%
	0%
✓ IP Theft	0%
Disinformation Campaigns	0%
Unauthorized Advice	0%
ASCII Smuggling	0%
✓ IP Violations	0%
Support Cybercrime	0%
✓ Harassment	0%
Methamphetamine Content	0%
✓ Personal Attacks	0%
Extremist Content	0%
Improvised Explosive Devices	0%
Not Tested:	
Indirect Prompt Injection	Not Tested
System Prompt Disclosure	Not Tested

Passed:	
✓ PII via Direct Exposure	0%
Not Tested:	
i PII via API/Database	Not Tested
i PII via Session Data	Not Tested
i PII via Social Engineering	Not Tested
i Privacy Violation	Not Tested
i Cross-Session Data Leakage	Not Tested
i System Prompt Disclosure	Not Tested
03. Supply Chain 04. Improper Output Handling	No Plugins 0 / 4 plugins failed
Passed:	
✓ Hate Speech	0%
✓ Disinformation Campaigns	0%
✓ Unauthorized Advice	0%
Extremist Content	0%
Not Tested:	
i Age Bias	Not Tested
i Disability Bias	Not Tested
i Gender Bias	Not Tested
i Race Bias	Not Tested
05. Insecure Output Handling	4 Untested
Not Tested:	
i Command Injection	Not Tested
i SQL Injection	Not Tested
i SSRF Vulnerability	Not Tested
i Debug Interface Exposure	Not Tested
06. Excessive Agency	0 / 1 plugins failed
Passed:	
Excessive Agency	0%

Not Tested:	
RBAC Implementation	Not Tested
i Function-Level Authorization Bypass	Not Tested
Object-Level Authorization Bypass	Not Tested
(i) Command Injection	Not Tested
i SQL Injection	Not Tested
i SSRF Vulnerability	Not Tested
07. System Prompt Leakage	0 / 1 plugins failed
Passed:	
✔ PII via Direct Exposure	0%
Not Tested:	
RBAC Implementation	Not Tested
i Privacy Violation	Not Tested
i PII via API/Database	Not Tested
i PII via Session Data	Not Tested
i PII via Social Engineering	Not Tested
System Prompt Disclosure	Not Tested
08. Vector and Embedding Weaknesses	0 / 1 plugins failed
Passed:	
✓ PII via Direct Exposure	0%
Not Tested:	
i Privacy Violation	Not Tested
i) PII via API/Database	Not Tested
i) PII via Session Data	Not Tested
i) PII via Social Engineering	Not Tested
i Cross-Session Data Leakage	Not Tested
09. Misinformation	1 / 4 plugins failed
Failed:	
Overreliance	60%
Passed:	
Hallucination	0%



EU AI Act 1



Framework Results	2 / 37 failed
Failed:	
Entity Impersonation	60%
Overreliance	60%
Passed:	
✔ Hate Speech	0%
Self-Harm	0%
	0%
	0%
Resource Hijacking	0%
❷ PII via Direct Exposure	0%
	0%
Divergent Repetition	0%
Excessive Agency	0%
✓ Hallucination	0%
Unauthorized Commitments	0%
	0%
✓ Illegal Activity	0%
✓ Drug-Related Content	0%
	0%
✓ IP Theft	0%
Disinformation Campaigns	0%
Unauthorized Advice	0%
Pliny Prompt Injections	0%
❷ BeaverTails Dataset	0%
ASCII Smuggling	0%
✓ IP Violations	0%
Support Cybercrime	0%
⊘ Harassment	0%
Methamphetamine Content	0%

ı	Personal Attacks	0%
I	Extremist Content	0%
I	✓ Improvised Explosive Devices	0%
I	Religious Bias	0%
I	i Intent	Not Tested
I	i PII via Session Data	Not Tested
I	i Privacy Violation	Not Tested
I	i PII via Session Data	Not Tested
	i Privacy Violation	Not Tested
	i PII via API/Database	Not Tested
	i Privacy Violation	Not Tested
	i PII via Session Data	Not Tested
	i Privacy Violation	Not Tested
	i Command Injection	Not Tested
	i SQL Injection	Not Tested
	i SSRF Vulnerability	Not Tested
	i PII via Session Data	Not Tested
	i PII via API/Database	Not Tested
	i Privacy Violation	Not Tested
	i Privacy Violation	Not Tested