auditace.tech

AuditAce
FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

Neural AI

DATED : 05 FEB 23'

AUDIT SUMMARY

Project name – Neural AI

Date: 05 February, 2023

Scope of Audit- Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

Audit Status: Passed (Contract is developed by pinksale safu dev)

Issues Found

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0

USED TOOLS

Tools:

1- Manual Review:
a line by line code review has been performed by audit ace team.

2- BSC Test Network:
all tests were done on BSC Test network, each test has its transaction has attached to it.

3- Slither : Static Analysis

Testnet Link: all tests were done using this contract, tests are done on BSC Testnet

https://testnet.bscscan.com/address/0x99788c3f8903723D0278a1A8b3039b87561B191D#code

Token Information

Token Name : Neural AI

Token Symbol: Neural AI

Decimals: 18

Token Supply: 1,000,000,000

Token Address:
0xB9C255C115636D8CBe107FC953364b243cACdbCE

Checksum:
f4e3f77606e33ca0293c8dcb58c65941a0facdfc61508cdfd4c3f4f46932de77

Owner:
0xd89fEfa535983dF66442FF6aEe848cac4dE8Ad96

Deployer:
0xd89fEfa535983dF66442FF6aEe848cac4dE8Ad96

TOKEN OVERVIEW

Fees:

Buy Fees: 0%

Sell Fees: 0%

Transfer Fees: 0%

Fees Privilige: None

Ownership : Owned

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Priviliges: No

AUDIT METHODOLOGY

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-by-line in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.

VULNERABILITY CHECKLIST

- [x] Return values of low-level calls
- [x] Private modifier
- [x] Multiple Sends
- [x] Using Suicide
- [x] Gas Limitand Loops
- [x] Address hardcoded
- [x] Exception Disorder
- [x] Using inline assembly
- [x] Divide before multiply
- [x] Missing Zero Address Validation
- [x] Compiler version not fixed
- [x] **Gasless Send**
- [x] Using block.timestamp
- [x] Re-entrancy
- [x] Tautology or contradiction
- [x] Timestamp Dependence
- [x] Revert/require functions
- [x] Use of tx.origin
- [x] Integer overflow/underflow
- [x] Dangerous strict equalities
- [x] Using SHA3
- [x] Using throw

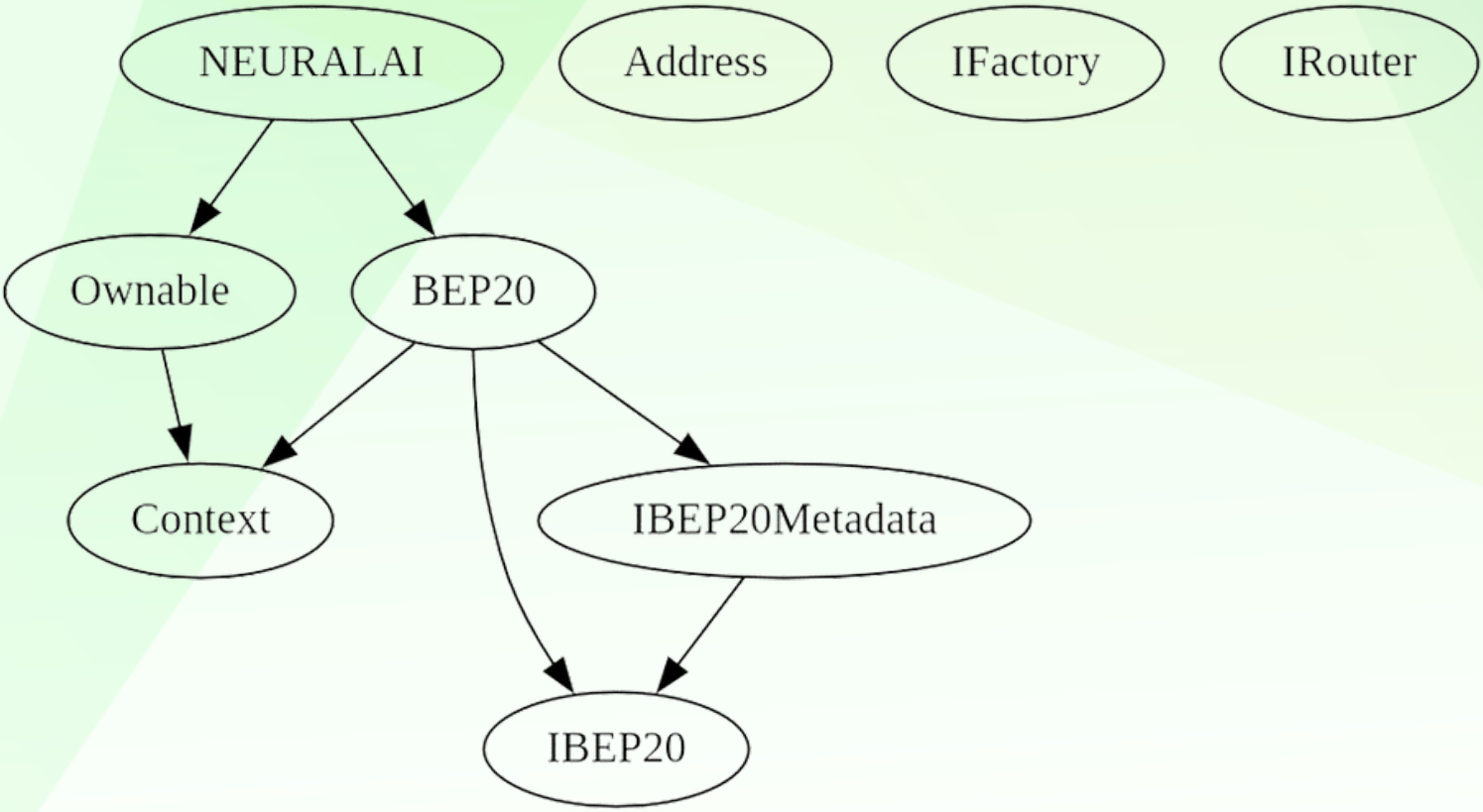
CLASSIFICATION OF RISK

Severity	Description
Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
Gas Optimization /Suggestion	A vulnerability that has an informational character but is not affecting any of the code.

Findings

Severity	Found
Critical	0
High-Risk	0
Medium-Risk	0
Low-Risk	0
Gas Optimization / Suggestions	0

INHERITANCE TREE



POINTS TO NOTE

- Owner is not able to set buy/sell taxes (0% forever)
- Owner is not able to blacklist an arbitrary wallet
- Owner is not able to set max buy/sell/transfer amounts
- Owner is not able to disable trades
- Owner is not able to mint new tokens

CONTRACT ASSESMENT

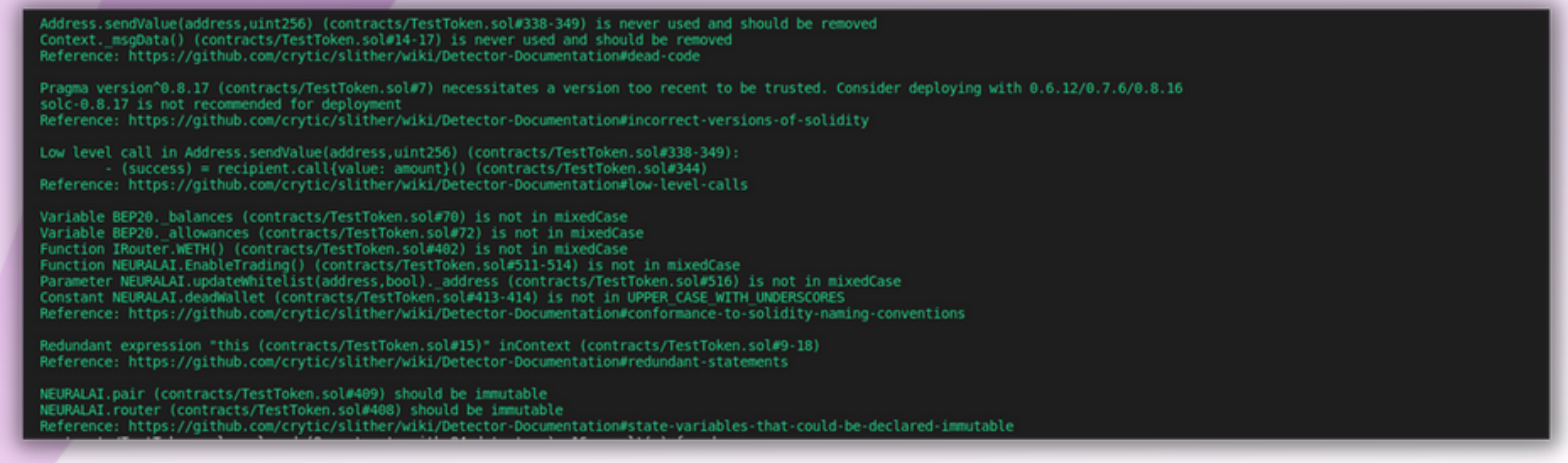
Contract	Type	Bases		
└	**Function Name**	**Visibility**	**Mutability**	**Modifiers**
Context	Implementation			
└	_msgSender	Internal 🔒		
└	_msgData	Internal 🔒		
IBEP20	Interface			
└	totalSupply	External ❗		NO❗
└	balanceOf	External ❗		NO❗
└	transfer	External ❗	🛑	NO❗
└	allowance	External ❗		NO❗
└	approve	External ❗	🛑	NO❗
└	transferFrom	External ❗	🛑	NO❗
IBEP20Metadata	Interface	IBEP20		
└	name	External ❗		NO❗
└	symbol	External ❗		NO❗
└	decimals	External ❗		NO❗
BEP20	Implementation	Context, IBEP20, IBEP20Metadata		
└	<Constructor>	Public ❗	🛑	NO❗
└	name	Public ❗		NO❗
└	symbol	Public ❗		NO❗
└	decimals	Public ❗		NO❗
└	totalSupply	Public ❗		NO❗
└	balanceOf	Public ❗		NO❗
└	transfer	Public ❗	🛑	NO❗
└	allowance	Public ❗		NO❗
└	approve	Public ❗	🛑	NO❗
└	transferFrom	Public ❗	🛑	NO❗
└	increaseAllowance	Public ❗	🛑	NO❗
└	decreaseAllowance	Public ❗	🛑	NO❗
└	_transfer	Internal 🔒	🛑	
└	_tokengeneration	Internal 🔒	🛑	
└	_approve	Internal 🔒	🛑	
Address	Library			
└	sendValue	Internal 🔒	🛑	
Ownable	Implementation	Context		

CONTRACT ASSESMENT

└	<Constructor>	Public ❗	🛑	NO❗
└	owner	Public ❗		NO❗
└	renounceOwnership	Public ❗	🛑	onlyOwner
└	transferOwnership	Public ❗	🛑	onlyOwner
└	_setOwner	Private 🔐	🛑	
IFactory	Interface			
└	createPair	External ❗	🛑	NO❗
IRouter	Interface			
└	factory	External ❗		NO❗
└	WETH	External ❗		NO❗
NEURALAI	Implementation	BEP20, Ownable		
└	<Constructor>	Public ❗	🛑	BEP20
└	approve	Public ❗	🛑	NO❗
└	transferFrom	Public ❗	🛑	NO❗
└	increaseAllowance	Public ❗	🛑	NO❗
└	decreaseAllowance	Public ❗	🛑	NO❗
└	transfer	Public ❗	🛑	NO❗
└	_transfer	Internal 🔒	🛑	
└	EnableTrading	External ❗	🛑	onlyOwner
└	updateWhitelist	External ❗	🛑	onlyOwner
└	bulkWhitelist	External ❗	🛑	onlyOwner
└	rescueBNB	External ❗	🛑	onlyOwner
└	rescueBSC20	External ❗	🛑	onlyOwner
└	burnBSC20	External ❗	🛑	onlyOwner
└	<Receive Ether>	External ❗	💵	NO❗

Symbol	Meaning
🛑	Function can modify state
💵	Function is payable

STATIC ANALYSIS



```
Address.sendValue(address,uint256) (contracts/TestToken.sol#338-349) is never used and should be removed
Context._msgData() (contracts/TestToken.sol#14-17) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.17 (contracts/TestToken.sol#7) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.17 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in Address.sendValue(address,uint256) (contracts/TestToken.sol#338-349):
        - (success) = recipient.call{value: amount}() (contracts/TestToken.sol#344)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable BEP20._balances (contracts/TestToken.sol#70) is not in mixedCase
Variable BEP20._allowances (contracts/TestToken.sol#72) is not in mixedCase
Function IRouter.WETH() (contracts/TestToken.sol#402) is not in mixedCase
Function NEURALAI.EnableTrading() (contracts/TestToken.sol#511-514) is not in mixedCase
Parameter NEURALAI.updateWhitelist(address,bool)._address (contracts/TestToken.sol#516) is not in mixedCase
Constant NEURALAI.deadWallet (contracts/TestToken.sol#413-414) is not in UPPER_CASE_WITH_UNDERSCORES
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Redundant expression "this (contracts/TestToken.sol#15)" inContext (contracts/TestToken.sol#9-18)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements

NEURALAI.pair (contracts/TestToken.sol#409) should be immutable
NEURALAI.router (contracts/TestToken.sol#408) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
```

Result => A static analysis of contract’s source code has been performed using slither,

No major issues were found in the output

FUNCTIONAL TESTING

Router (PCS V2):
0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding Liquidity (Passed):
liquidity added on Pancakeswap V2:

https://testnet.bscscan.com/tx/0x9f90843d9c342bebec62c7a57a855192bc7c10ef044b0d94bb8a16a138b69311

no issue were found on adding liquidity.

2- Buying (Whitelisted wallets ,0% tax)(Passed):

https://testnet.bscscan.com/tx/0x6ec46fddebc8fd38a40d9bfb412407c1cb9a438db9a70554af0e2580bd08a057

3- Selling (Whitelisted wallets ,0% tax)(Passed):

https://testnet.bscscan.com/tx/0x326ae50b6b33067b062d593f867fbf9df8361e8fa72b0b140e934076b07117c3

4)Enabling Trading(Passed):

https://testnet.bscscan.com/tx/0xf83e7b2a32b6d3ea33614fb459d28861beff48b81b3b9e4860f416c096c0c0ed

FUNCTIONAL TESTING

5- Buying (Non-Whitelisted wallets after enabling trades ,0% tax)(Passed):

https://testnet.bscscan.com/tx/0x4acc52c5f459baf311de2fbdda9d941c38afe6e2473660bafa3af7cd78f371ac

6- Selling (Non-Whitelisted wallets after enabling trades ,0% tax)(Passed):

https://testnet.bscscan.com/tx/0x6c990a498b272b160635da51241977fc88224fb31ef9a91c39a469d325554c7e

MANUAL TESTING

NO ISSUES FOUND

Social Media Overview

Here are the Social Media Accounts of

Neural AI

https://t.me/CoreAI_Channel

https://t.me/NeuralAIChat

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