

Cyberverseland

Smart Contract Audit Report





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# **AUDITED DETAILS**

### Audited Project

Project name	Token ticker	Blockchain	
Cyberverseland	CYBERVERSE	Binance Smart Chain	

### Addresses

Contract address	0x0911BBfF1F00E94a1D3FcFa331E890F05337CD4B	
Contract deployer address	0x7271ed7709d8bB6f83766b76Db276b50e057d2b9	

### Project Website

https://www.cyberverseland.com/

### Codebase

https://bscscan.com/address/0x0911BBfF1F00E94a1D3FcFa331E890F05337CD4B#code



### **SUMMARY**

Cyberverseland - The bridge between physical and virtual worlds within the decentralized and futuristic virtual world. Your imagination is the only limitation in Cyberverseland!

### Contract Summary

#### **Documentation Quality**

Cyberverseland provides a very good documentation with standard of solidity base code.

• The technical description is provided clearly and structured and also dont have any high risk issue.

#### **Code Quality**

The Overall quality of the basecode is standard.

 Standard solidity basecode and rules are already followed by Cyberverseland with the discovery of several low issues.

#### **Test Coverage**

Test coverage of the project is 100% (Through Codebase)

### Audit Findings Summary

- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 217, 242, 271, 303, 304, 450, 482, 522, 535, 550, 582, 590, 594, 602, 610, 614, 635, 636, 638, 644, 645, 646, 647, 654, 705, 714, 725 and 756.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 7.
- SWC-110 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 664, 665 and 757.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 582 and 734.



### CONCLUSION

We have audited the Cyberverseland project which has released on January 2023 to discover issues and identify potential security vulnerabilities in Cyberverseland Project. This process is used to find technical issues and security loopholes that find some common issues in the code.

The security audit report produced satisfactory results with low-risk issues.

The most common issue found in writing code on contracts that do not pose a big risk, writing on contracts is close to the standard of writing contracts in general. The low-level issues found are some arithmetic operation issues, a floating pragma is set, weak sources of randomness and out of bounds array access which the index access expression can cause an exception in case of use of an invalid array index value.



# **AUDIT RESULT**

Article	Category	Description	Result	
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	PASS	
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.		
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.		
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.  ISSU FOUN		
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.		
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.		
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.		
Assert Violation	SWC-110	Properly functioning code should never reach a failing assert statement.		
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	nctions should never be used. PASS	
Delegate call to Untrusted Caller	SWC-112	Delegatecalls should only be allowed to trusted addresses.		
DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.		
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS	



Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Shadowing State Variable	SWC-119	VC-119 State variables should not be shadowed.	
Weak Sources of Randomness	SWC-120		ISSUE FOUND
Incorrect Inheritance Order  When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.		PASS	



# **SMART CONTRACT ANALYSIS**

Started	Sunday Jan 22 2023 16:33:08 GMT+0000 (Coordinated Universal Time)		
Finished	Monday Jan 23 2023 22:34:52 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	Cyberverseland.sol		

### Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged



S	SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
S	SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
S	SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
S	SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
S	SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
S	SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
S	SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
S	SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged



**LINE 217** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
216 );
217 _approve(sender, _msgSender(), currentAllowance - amount);
218
219 return true;
220 }
221
```



**LINE 242** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
241 spender,
242 _allowances[_msgSender()][spender] + addedValue
243 );
244 return true;
245 }
246
```



**LINE 271** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
270 );
271 _approve(_msgSender(), spender, currentAllowance - subtractedValue);
272
273 return true;
274 }
275
```



**LINE 303** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
302 );
303    _balances[sender] = senderBalance - amount;
304    _balances[recipient] += amount;
305
306    emit Transfer(sender, recipient, amount);
307
```



**LINE 304** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
303    _balances[sender] = senderBalance - amount;
304    _balances[recipient] += amount;
305
306    emit Transfer(sender, recipient, amount);
307  }
308
```



**LINE 450** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
449
450 uint256 public tokenLiquidityThreshold = 1e6 * 10**18;
451
452 uint256 public genesis_block;
453 uint256 private deadline = 0;
454
```



**LINE 482** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol



**LINE 522** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
521 );
522 _approve(sender, _msgSender(), currentAllowance - amount);
523
524 return true;
525 }
526
```



**LINE 535** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
534 spender,
535 _allowances[_msgSender()][spender] + addedValue
536 );
537 return true;
538 }
539
```



**LINE 550** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
549 );
550 _approve(_msgSender(), spender, currentAllowance - subtractedValue);
551
552 return true;
553 }
554
```



**LINE 582** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
! exemptFee[recipient] &&

582 block.number < genesis_block + deadline;

583

584    //set fee to zero if fees in contract are handled or exempted

585    if (_interlock || exemptFee[sender] || exemptFee[recipient])

586</pre>
```



**LINE 590** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
else if (recipient == pair && !useLaunchFee) {
590    feeswap = sellTaxes.liquidity + sellTaxes.marketing;
591    feesum = feeswap;
592    currentTaxes = sellTaxes;
593    } else if (!useLaunchFee) {
594
```



**LINE 594** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
593  } else if (!useLaunchFee) {
594  feeswap = taxes.liquidity + taxes.marketing;
595  feesum = feeswap;
596  currentTaxes = taxes;
597  } else if (useLaunchFee) {
598
```



**LINE 602** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
601
602 fee = (amount * feesum) / 100;
603
604 //send fees if threshold has been reached
605 //don't do this on buys, breaks swap
606
```



**LINE 610** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
609  //rest to recipient
610  super._transfer(sender, recipient, amount - fee);
611  if (fee > 0) {
612   //send the fee to the contract
613  if (feeswap > 0) {
614
```



**LINE 614** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
613 if (feeswap > 0) {
614  uint256 feeAmount = (amount * feeswap) / 100;
615  super._transfer(sender, address(this), feeAmount);
616  }
617  }
618
```



**LINE 635** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
// Split the contract balance into halves
uint256 denominator = feeswap * 2;
uint256 tokensToAddLiquidityWith = (contractBalance *
swapTaxes.liquidity) / denominator;
uint256 toSwap = contractBalance - tokensToAddLiquidityWith;
```



**LINE 636** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
635  uint256 denominator = feeswap * 2;
636  uint256 tokensToAddLiquidityWith = (contractBalance *
637  swapTaxes.liquidity) / denominator;
638  uint256 toSwap = contractBalance - tokensToAddLiquidityWith;
639
640
```



**LINE 638** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
637 swapTaxes.liquidity) / denominator;
638 uint256 toSwap = contractBalance - tokensToAddLiquidityWith;
639
640 uint256 initialBalance = address(this).balance;
641
642
```



**LINE 644** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
643
644 uint256 deltaBalance = address(this).balance - initialBalance;
645 uint256 unitBalance = deltaBalance /
646 (denominator - swapTaxes.liquidity);
647 uint256 ethToAddLiquidityWith = unitBalance * swapTaxes.liquidity;
648
```



**LINE 645** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
644  uint256 deltaBalance = address(this).balance - initialBalance;
645  uint256 unitBalance = deltaBalance /
646  (denominator - swapTaxes.liquidity);
647  uint256 ethToAddLiquidityWith = unitBalance * swapTaxes.liquidity;
648
649
```



**LINE 646** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
645  uint256 unitBalance = deltaBalance /
646  (denominator - swapTaxes.liquidity);
647  uint256 ethToAddLiquidityWith = unitBalance * swapTaxes.liquidity;
648
649  if (ethToAddLiquidityWith > 0) {
650
```



**LINE 647** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
646 (denominator - swapTaxes.liquidity);
647 uint256 ethToAddLiquidityWith = unitBalance * swapTaxes.liquidity;
648
649 if (ethToAddLiquidityWith > 0) {
650  // Add liquidity to pancake
651
```



**LINE 654** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
653
654 uint256 marketingAmt = unitBalance * 2 * swapTaxes.marketing;
655 if (marketingAmt > 0) {
656 payable(marketingWallet).sendValue(marketingAmt);
657 }
658
```



**LINE** 705

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
704 );
705 tokenLiquidityThreshold = new_amount * 10**decimals();
706 }
707
708 function SetBuyTaxes(uint256 _marketing, uint256 _liquidity)
709
```



**LINE 714** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
713 require(
714 (_marketing + _liquidity) <= 1,
715 "Must keep fees at 1% or less"
716 );
717 }
718
```



**LINE 725** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
724 require(
725 (_marketing + _liquidity) <= 1,
726 "Must keep fees at 1% or less"
727 );
728 }
729
```



**LINE 756** 

#### **low SEVERITY**

This plugin produces issues to support false positive discovery within mythril.

#### Source File

- Cyberverseland.sol

```
755 {
756    for (uint256 i = 0; i < accounts.length; i++) {
757        exemptFee[accounts[i]] = state;
758    }
759    }
760
```



### SWC-103 | A FLOATING PRAGMA IS SET.

LINE 7

#### **low SEVERITY**

The current pragma Solidity directive is ""^0.8.17"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

#### Source File

- Cyberverseland.sol

```
6
7 pragma solidity ^0.8.17;
8
9 abstract contract Context {
10 function _msgSender() internal view virtual returns (address) {
11
```



### SWC-110 | OUT OF BOUNDS ARRAY ACCESS

**LINE 664** 

#### **low SEVERITY**

The index access expression can cause an exception in case of use of invalid array index value.

#### Source File

- Cyberverseland.sol

```
address[] memory path = new address[](2);
path[0] = address(this);
path[1] = router.WETH();

666
approve(address(this), address(router), tokenAmount);
668
```



### SWC-110 | OUT OF BOUNDS ARRAY ACCESS

**LINE 665** 

#### **low SEVERITY**

The index access expression can cause an exception in case of use of invalid array index value.

#### Source File

- Cyberverseland.sol

```
664 path[0] = address(this);
665 path[1] = router.WETH();
666
667 _approve(address(this), address(router), tokenAmount);
668
669
```



### SWC-110 | OUT OF BOUNDS ARRAY ACCESS

**LINE** 757

#### **low SEVERITY**

The index access expression can cause an exception in case of use of invalid array index value.

#### Source File

- Cyberverseland.sol

```
756 for (uint256 i = 0; i < accounts.length; i++) {
757 exemptFee[accounts[i]] = state;
758 }
759 }
760
761
```



# SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

**LINE 582** 

#### **low SEVERITY**

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

#### Source File

- Cyberverseland.sol

```
581 !exemptFee[recipient] &&
582 block.number < genesis_block + deadline;
583
584  //set fee to zero if fees in contract are handled or exempted
585 if (_interlock || exemptFee[sender] || exemptFee[recipient])</pre>
```



# SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

**LINE 734** 

#### **low SEVERITY**

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

#### Source File

- Cyberverseland.sol

```
733 providingLiquidity = true;
734 genesis_block = block.number;
735 }
736
737 function updatedeadline(uint256 _deadline) external onlyOwner {
```



### **DISCLAIMER**

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.