

# Wen Zhan (Zion)

BLOCKCHAIN RESEARCHER · SMART CONTRACT DEVELOPER

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"In Crypto We Trust."

## Education

### KIT (Karlsruhe Institute of Technology)

Karlsruhe, Germany

M.S. IN COMPUTER SCIENCE

Oct. 2018 - Oct. 2022

- Studied cryptography and theoretical computation
- Master thesis: Analysing Performance of Atomic Broadcast in the Asynchronous Setting

### KIT (Karlsruhe Institute of Technology)

Karlsruhe, Germany

FOUNDATION COURSE: GERMAN LANGUAGE

Oct. 2017 - Oct. 2018

- Achieved German language level: DSH-2 (B2-C1 level)

### UESTC (University of Electronic Science and Technology of China)

Chengdu, China

B.S. IN NETWORK ENGINEERING

Sep. 2013 - Jun. 2017

- Eligible for graduate school without examinations

## Skills

**Dev Tool** GitHub, GitLab, VS Code, Docker

**Smart Contract** Solidity, Foundry, Hardhat, Open Zeppelin, Gnosis Safe, Tenderly

**Blockchain** Bitcoin, Ethereum, OP Stack, Ethersjs, Web3js, Web3Onboard, WalletConnect

**Front End** React, Next.js

**Languages** English, German, Chinese

## Experience

### Orderly Network

Karlsruhe, Germany

BLOCKCHAIN RESEARCHER · SMART CONTRACT DEVELOPER

Nov. 2022 - Present

- Researched the consensus mechanism Nightshade of the NEAR protocol and its asynchronous transaction system, and investigated the NEAR account model.
- Researched and tested the Cross-Chain solutions: LayerZero, Poly Network, CCIP of Chainlink and CCTP of Circle.
- Defined and implemented Wallet Authentication based on EIP-712 typed message.
- Implemented the Orderly account system and designed the user operations flow.
- Developed the Vault contract and the Ledger contracts to enable onchain deposit and withdrawal, and integrated with Layerzero Cross-Chain solution.
- Deployed a Subnet using Avalanche Subnet framework for test purpose.
- Deployed Orderly L2 blockchain mainnet and testnet on top of OP Stack.
- Connected Orderly L2 with OP, Arbitrum and Polygon PoS using Layerzero Endpoint contract.
- Deployed Safe contracts on Orderly L2 to enable Multisig functionalities.

### Poly Network

Shanghai, China

BLOCKCHAIN RESEARCH INTERNSHIP

Dec. 2020 - Nov 2021

- Researched the cryptographic foundation: ECDSA key-pair generation, signature verification, hash computation.
- Figured out how BIP-39 works to generate private keys out of Mnemonic and its security guarantee.
- Understood how PoW mechanism achieves consensus in an asynchronous and permissionless network.
- Researched the Merkle tree data structure and how to prove the inclusion of Bitcoin transaction.
- Researched how the script system works to validate UTXO transfer and guarantee the ownership of Bitcoin.
- Participated in Poly Network exploit incident calming and service recovery