

Emily Zhao — Data Structures & Algorithms Specialist

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Professional Summary

Algorithm enthusiast (ICPC regionals). Profiles memory & compresses sparse trie data. Great fit to redesign Ethereum MPT inefficiencies for SOLSTICE storage slicing.

Key Skills

- Trie / tree compression, hashing strategies
- Complexity analysis (asymptotic & empirical)
- Rust & Python prototyping; Golang integration
- State chunking / dataset reduction

Relevant Coursework: Advanced Data Structures; Algorithm Design; Big Data Systems.

Selected Projects

- Trie Compaction Lab (■40% node storage)
- Sparse State Snapshot Tool (ledger chunking)
- Ethereum State Inspector (block diff parser)

Contribution to SOLSTICE

Design state slicing strategy; optimize node encoding; measure disk usage vs archive node.