

Samuel Schlesinger

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Education

2019 **B.A. Computer Science and Math**, *UMass*, Amherst.

Professional Experience

- nov 2022-now **Research Engineer**, *Google*, Remote.
Working within the Privacy Sandbox initiative to design privacy-preserving anti-fraud measures to ensure that the private internet can still be a safe internet. Developing and implementing cryptography for novel privacy-preserving use cases in close collaboration with Google Research, heavily leveraging zero-knowledge proofs.
- jan 2022-nov 2022 **Software Engineer, Scientist**, *Casper Labs*, Remote.
Working on the consensus team designing and implementing a novel Byzantine Fault Tolerant consensus algorithm for the Casper blockchain, as well as maintaining the existing Highway protocol. Authored a paper about this protocol, which reduced Atomic Broadcast to two subproblems, Reliable Broadcast and Weakly-Terminating Binary Agreement, the latter of which is novel.
- 2019-2022 **Software Engineer, Team Lead**, *SimSpace*, Boston/Remote.
Lead a small team of engineers working on Cyber Range orchestration and automated cyber attack specification and execution.
- 2018 **Researcher**, *University of Colorado*, Boulder.
Analyzed properties of a novel probabilistic computational model, analyzing interesting connections between it and circuit complexity.
- 2016-2017 **Software Engineer**, *theam*, Remote.
Created an integrated development environment for data science in Haskell. Researched and developed machine learning capabilities.

Advanced Courses

Graduate Level.

Combinatorial Optimization, Applied Information Theory, Algebraic Graph Theory, Computational Complexity Theory, Programming Languages, Advanced Logic in Computer Science, Graph Theory and Combinatorics, Algorithmic Game Theory, Circuit Complexity

Other Knowledge

Smart Contracts.

Implemented a number of financial instruments in Solidity, as well as utilities and DAO infrastructure.

Programming Languages.

Rust, **Haskell**, TypeScript, Python, Java, Python, Lisp, OCaml, JavaScript, C, C++