

Youngjun Song

SOFTWARE ENGINEER

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Summary

Software engineer with a deep interest in the **Ethereum Consensus Layer (CL)** and P2P networking, proficient at prototyping. Quickly grasps new technologies and rapidly implements what we need while evaluating critical design tradeoffs. Skilled in writing Go, Rust, and Python and producing clear technical documentation. Prefers to explore feasibility and proof-of-concepts (PoC) through code implementation.

Work Experience

Ethereum Protocol Fellowship

Remote

FELLOW

June. 2025 - Nov. 2025

- Designed and implemented **SSZ Query Language** in **Prysm** from scratch. (Final report: epf.junsong.xyz)

ReamLabs

Remote

LEADING CONTRIBUTOR

Dec. 2024 - Present

- Maintaining **“Ream”**, the Lean Consensus Client written in Rust.
- Led the initial development of the client for the Post-Quantum (PQ) devnet, specifically focusing on client architecture design.
- Added modularity for choosing the backend of BLS signature primitive.
- Built a Proof-of-Concept project for integrating the Ethereum consensus state transition functions with zkVMs.

Superblock

Seoul, S.Korea

PROTOCOL ENGINEER

Apr. 2024 - Feb. 2025

- Maintained **“Chronos”**, the blockchain consensus client forked from Ethereum (Prysm).
- Found and fixed several bugs in the implementation using Grafana, Prometheus, and custom scripts.
- Built CI/CD pipelines on Github Actions for binary deployment.
- Reduced the CI/CD pipeline runtime from 25 minutes to under 10 by leveraging Bazel Remote Cache Server and GCP Workload Identity Federation.
- Built a server that provides checkpoints for syncing the blockchain client using GCP Cloud Run.
- Deployed tools to monitor and test the blockchain network.

FRONTEND DEVELOPER

Jan. 2023 - Mar. 2024

- Developed a GUI-based desktop application (**“OverScape”**) for operating a blockchain validator from scratch using Electron and React.
- Introduced Sentry to capture runtime errors from user sessions.
- Migrated the landing page from an SPA to Next.js, improving performance and SEO.

Open Source Experience

Ethereum Core Clients

PRYSM, RETH, LIGHTHOUSE

Aug. 2024 - Present

- Resolved the P2P sequence number persistence issue in **Prysm**. ([Related write-up](#))
- Fixed a bug that led to a memory leak when a future Ethereum upgrade (Pectra) was fully applied in **Prysm**.
- Added a new API for accessing fields (added in Electra upgrade) in the Ethereum Beacon State in **Lighthouse**.
- Added a panel that tracks buffered outgoing messages in the mempool, for the **Reth** Grafana dashboard.

Education

KAIST(Korea Advanced Institute of Science and Technology)

Daejeon, S.Korea

B.S. IN SCHOOL OF COMPUTING

Mar. 2018 - Expected Feb. 2027

- GPA: 3.77/4.3** (Earned 103 Credits until Summer 2025)
- NYU Dual Minor Program in Cybersecurity** (Expected Program Period: Spring 2026).

Extracurricular Activity

Orakle (KAIST Blockchain Society)

Seoul/Daejeon, S.Korea

CORE MEMBER & VICE PRESIDENT AT 2023

Sep. 2022 - Feb. 2024

- Delivered a presentation on **Ethereum Client Diversity** as a member of Team Client Diversity.
- Built the official Orakle website.