Senior Backend Developer

Dear Candidate,

Thank you for your interest in joining our team! As part of the recruitment process, we ask candidates to complete a take-home assignment detailed below. Please read the instructions carefully, and feel free to ask any questions you may have.

Background

You are developing software that relies on Ethereum Beacon Nodes. One of these nodes seems to be malfunctioning. To help track its performance, we need to add logging to the node. We suspect that Prysm is not verifying attestations correctly.

Prysm client github

https://github.com/prysmaticlabs/prysm

Prysm client docs

https://docs.prylabs.network/docs/getting-started

Assignment

Your task is to modify Prysm's code by adding a structure that:

- Counts successfully verified attestations.

- Counts failed attestations and records the reason for each failure.

- Outputs a summary of the collected data at the end of each epoch.

Requirements

- Ensure the solution accounts for concurrency, as blockchain nodes handle many processes in parallel.

- You do not need to run the Prysm node to complete this code change.

- There are multiple ways to approach this task, and there is no single "best" solution.

Notes

- We estimate that this task should take up to 5 hours. However, if you need more time, please let us know.

- If you have any questions, don't hesitate to reach out at ilya@ssvlabs.io

- Once you have completed the task, please upload the updated code to your GitHub account.

Good luck! :)