

CMPE 273 Projects

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Project 1: Python Remote Execution Framework

You will be building a Python remote execution framework that transports a python code to a worker node and the worker node will run as a subprocess. Finally, the result will be forwarded back to the caller (client).

References

- PySpark (Python integration for Apache Spark)
- Gearman (<http://gearman.org/>)
- Apache Storm (<https://storm.apache.org/index.html>)

Project 2: Implement Circuit Breaker in Proxy Server

You will be implementing a 3-stage circuit breaker for outbound HTTP calls in a proxy server.

References

- [Twisted Proxy](#)
- [Async Http Client/Server](#)
- [Python generic circuit breaker example](#)
- [Kong circuit breaker plugin](#)

Project 3: Proof of History

You will be implementing a proof of history to store bank transactions in a blockchain.

References

- Proof of history example

Project 4: Federated Byzantine Agreement (FBA)

You will be implementing a FBA to store bank transactions in a blockchain.

Reference

- [Python FBA example](#)