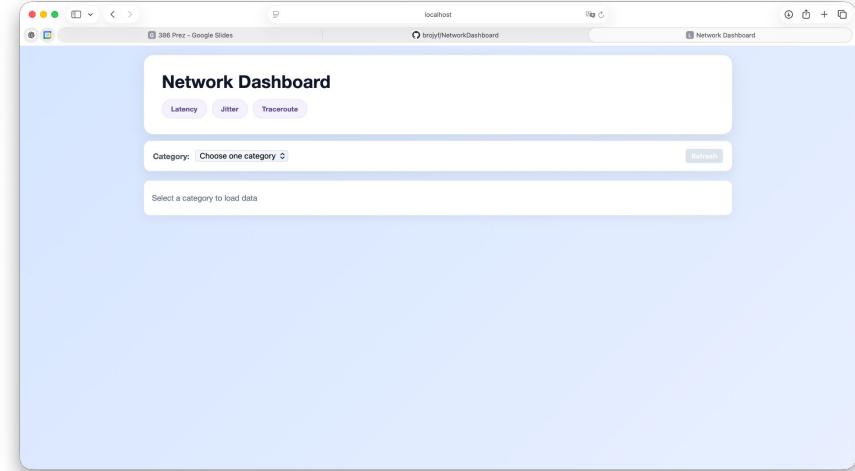


# Network Dashboard

ByteForge(Patrick) CS386 25F

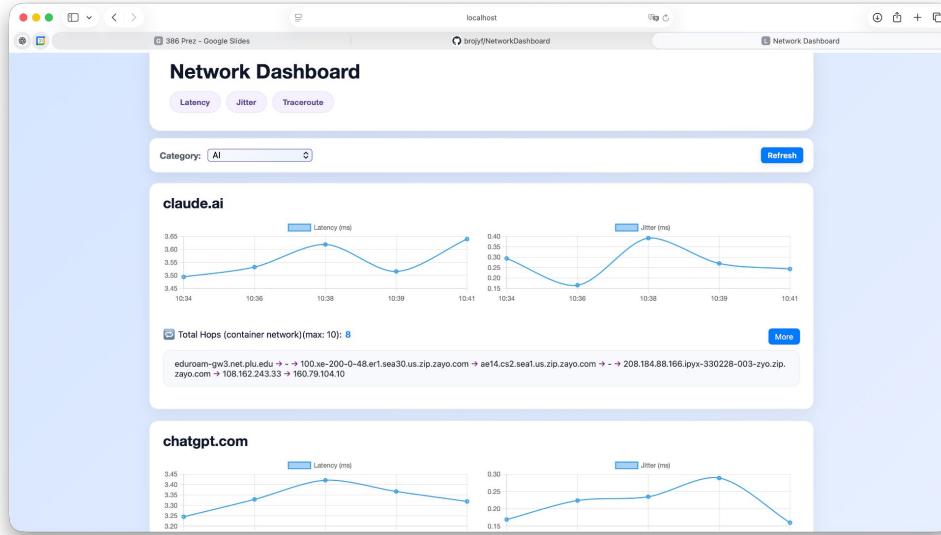
# Introduction

- Web-based visualization for network performance
- Monitors latency, jitter, and routing paths

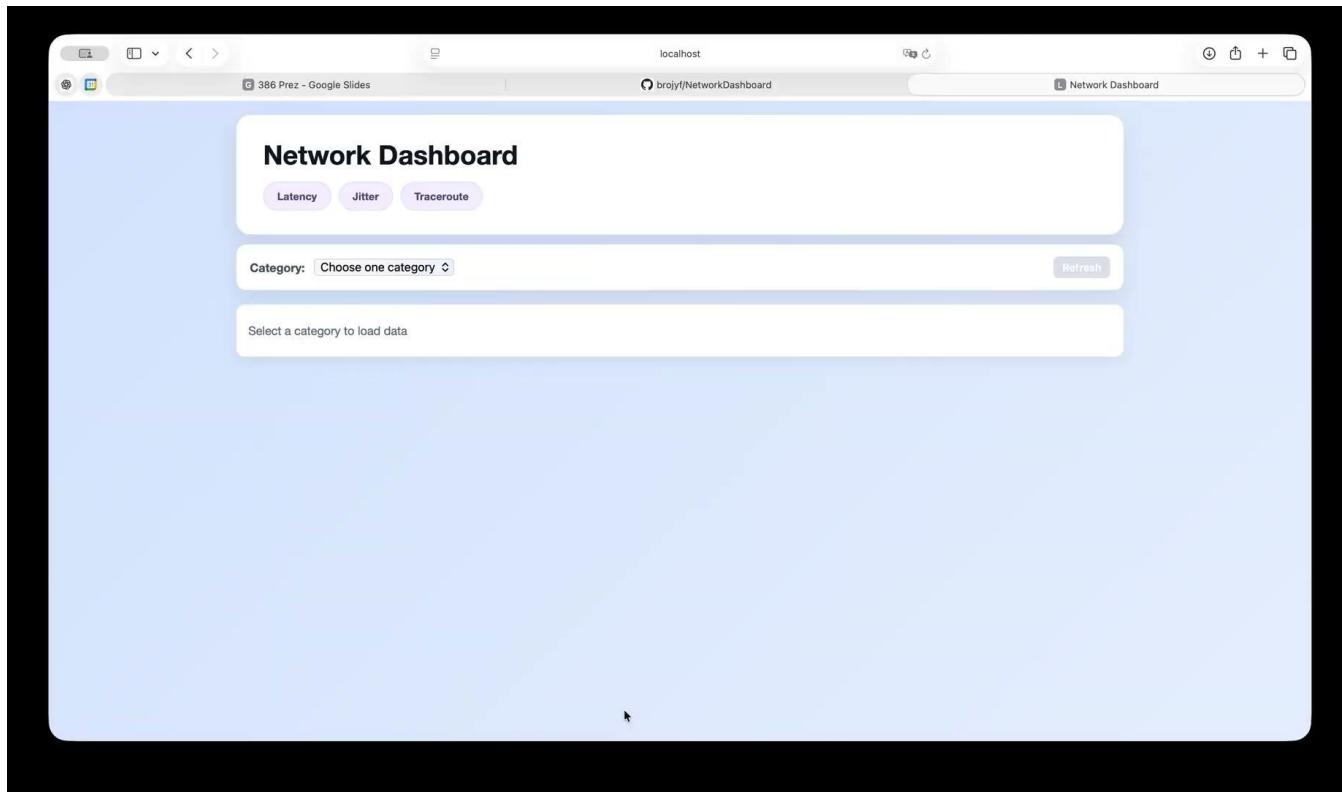


# Outline

- Demo
- Background
- Architecture Diagram
- Sequence Diagram
- Class Diagram
- Challenges
- References
- Questions



# Demo



# Background

- Golang (Gin framework)
- Bash & awk
- React & Chart.js
- Docker
- GitHub

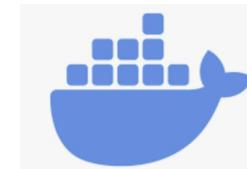
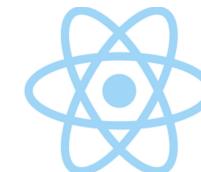
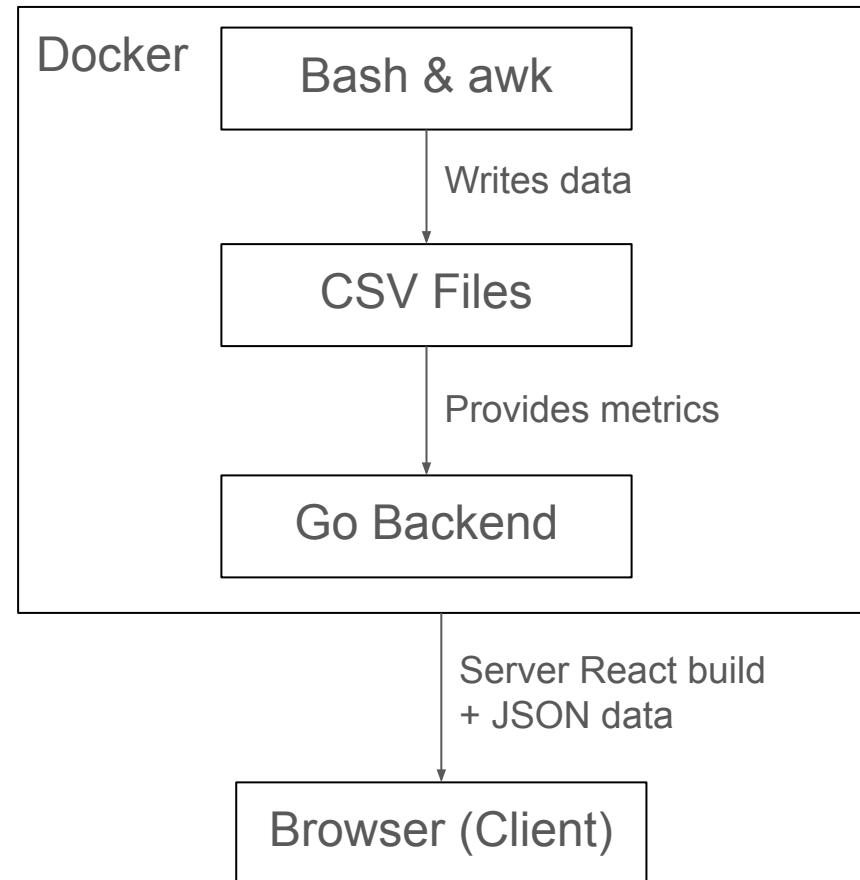
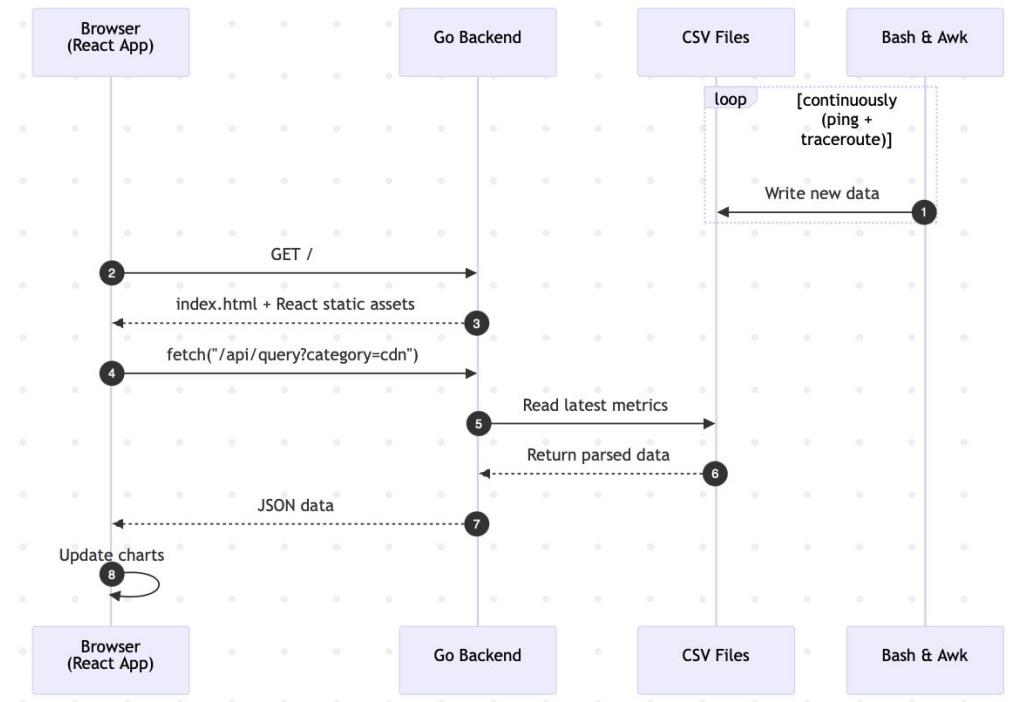


Chart.js

# Architecture Diagram

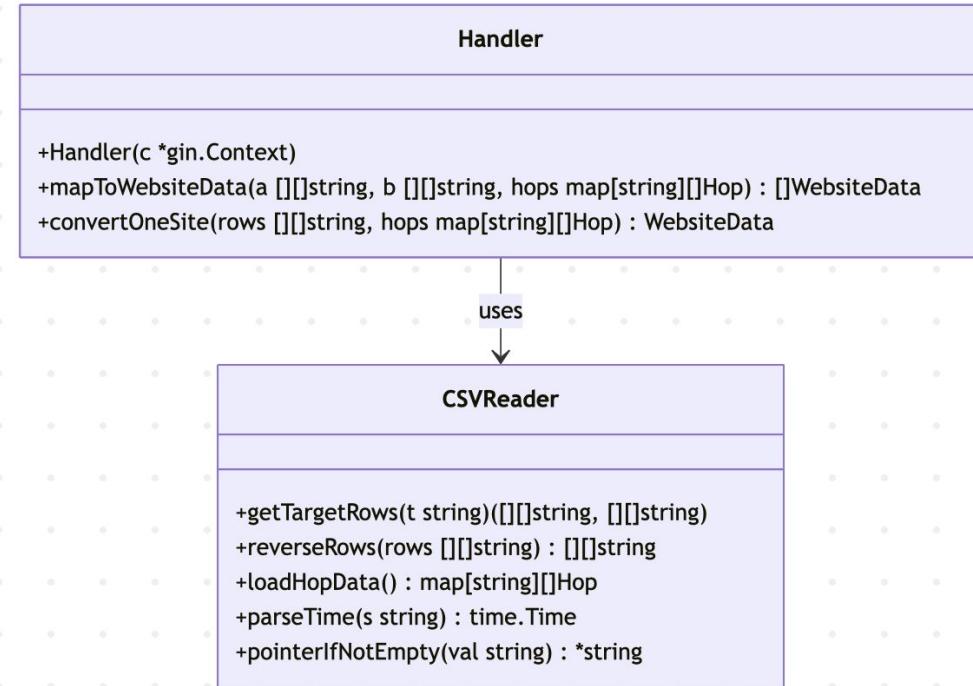


# Sequence Diagram



# Class Diagram

- Backend



# Challenges & Future Works

- Using awk
- Tried to use websocket
  - => Too complicated/Update every minute
- Add more websites
- Allow user to enter websites

```
(base) patj@patj-MacBook-Pro ~ % traceroute google.com
traceroute to google.com (142.250.217.78), 64 hops max, 40 byte packets
1 eduroam-gw3.net.plu.edu (10.72.0.3) 2.615 ms 1.139 ms 1.032 ms
2 * * *
3 162.16.198.64.in-addr.arpa (64.190.16.162) 3.026 ms 2.785 ms 2.821 ms
4 192.178.68.238 (192.178.68.238) 2.872 ms 2.980 ms
5 52.144.57.14 (52.144.57.141) 2.864 ms
6 * 108.170.255.127 (108.170.255.127) 3.608 ms
192.178.105.41 (192.178.105.41) 2.666 ms
6 sea09s29-in-f14.1e100.net (142.250.217.78) 2.943 ms
216.239.56.222 (216.239.56.222) 3.337 ms
142.251.55.202 (142.251.55.202) 2.846 ms
(base) patj@patj-MacBook-Pro ~ %
```

```
(base) patj@patj-MacBook-Pro ~ % ping -c 4 google.com
PING google.com (142.250.217.78): 56 data bytes
64 bytes from 142.250.217.78: icmp_seq=0 ttl=117 time=2.771 ms
64 bytes from 142.250.217.78: icmp_seq=1 ttl=117 time=2.309 ms
64 bytes from 142.250.217.78: icmp_seq=2 ttl=117 time=2.255 ms
64 bytes from 142.250.217.78: icmp_seq=3 ttl=117 time=1.798 ms

--- google.com ping statistics ---
4 packets transmitted, 4 packets received, 0.0% packet loss
round-trip min/avg/max/stdev = 1.798/2.283/2.771/0.345 ms
(base) patj@patj-MacBook-Pro ~ %
```

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# Questions?

Thank you!