

# Scale Your Future

*An Immersive Engineering Programme*

Radha Kumari

Margarita Glushkova

Berkeli Halmyradov



**<CODE>YOUR  
FUTURE**

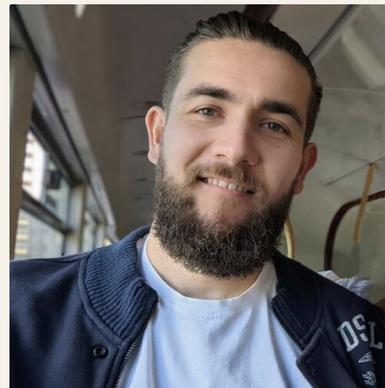
# About us



**Radha Kumari**  
Staff Engineer  
Demand Engineering Slack



**Margarita Glushkova**  
Engineer  
Demand Engineering Slack



**Berkeli Halmyradov**  
Engineer  
Demand Engineering Slack



# Why are we here

Software infrastructure and operations are **hard to break into**.

There are pathways for Computer science graduates, for non-graduates, the **doors are shut!**



# Code Your Future

Non-profit organisation for **refugees**  
and **low-income** people

Classes are **free** and teachers are  
**volunteers**

Main program focuses on PERN  
**software development**



# What is CYF+



## ABOUT

1. CONTRIBUTING
2. WE MADE THIS

### What is CYF+?

CYF+ is a full-time, remote, immersive engineering programme to prepare and place high-performing [CYF trainees](#) at high-performing tech companies. The programme is nine months in total, comprising three months of immersive study followed by six months placement with a partner company.

Our syllabus forms a spine of practical software engineering, focused on problem solving, reasoning about code, and communicating with others. We create encounters with the problems of pace, scale and complexity that set high-performing companies apart. All our projects are developed by engineers with substantial experience of very large systems.

### What is this website?

This is a small front end for our CYF+ syllabus, which lives [on GitHub](#). [Code Your Future](#) is committed to free and open source education. We develop all our courses [in public on GitHub](#).

[Contributors](#) are welcome.



Contributing

We made this

[Link to website](#)



# Why CYF+



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# Why CYF+

Building **diverse** talent for the future of SRE.



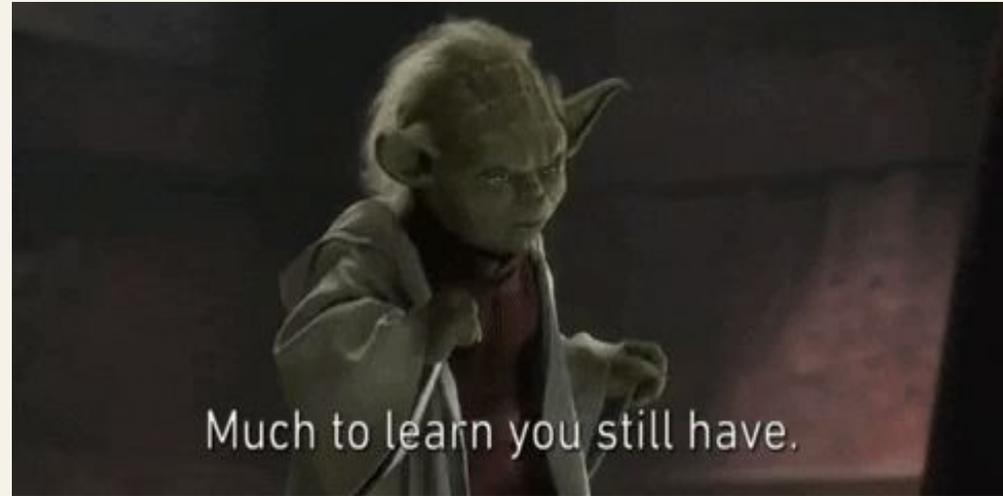
# Why CYF+

More **reliability** when hiring junior engineers.



# Why CYF+

**Mentorship** is a two-way growth opportunity.



# Why CYF+

Do some **good** :)



# Programme overview



# Programme structure

5 sprints, 12 weeks, 13 projects  
and 1 product

[immersive-go-course/projects/](#)

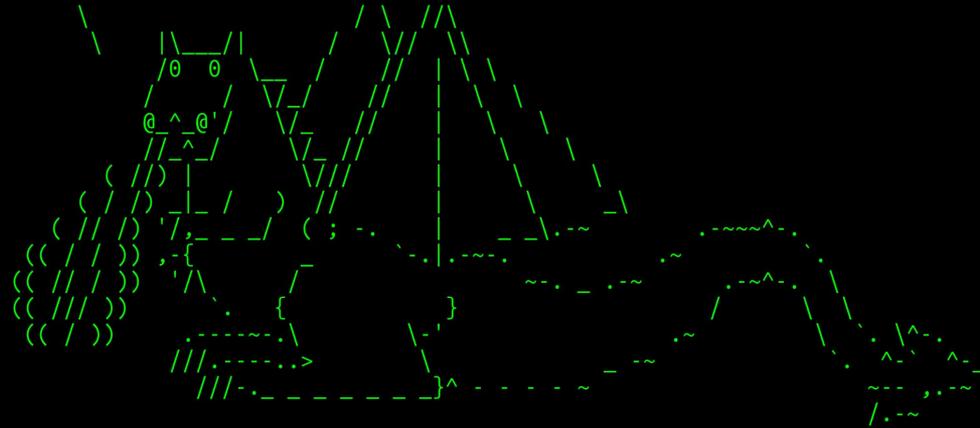
- ★ [Output and Error Handling](#)  
An introduction to how to handle errors in Go, and how to present information to users of programs run on the command line.
- ★ [CLI & Files](#)  
An introduction to building things with Go by replicating the unix tools `cat` and `ls`.
- ★ [File Parsing](#)  
Practice parsing different formats of files, both standard and custom.
- ★ [Servers & HTTP requests](#)  
Learn about long-running processes, HTTP and `curl`.
- ★ [Servers & Databases](#)  
Build a server that takes data from a database and serves it in `json` format.
- ★ [Multiple Servers](#)  
Build and run file & API servers behind `nginx` in a simple multi-server architecture.
- ★ [Docker & Cloud Deployment](#)  
Use containers to reproducibly deploy applications into the cloud.
- ★ [gRPC](#)  
Learn about RPCs and how they differ from REST, and start thinking about observability.
- ★ [Batch Processing](#)  
Build an image processing pipeline with cloud storage.
- ★ [Buggy App](#)  
Run, debug, and fix a buggy application.
- ★ [Memcache](#)  
Explore sharding and replication of state.
- ★ [Kafka Cron](#)  
Build a distributed multi-server application handling variable load, with Kafka as a task queue.
- ★ [RAFT and OTel](#)  
Build a complex distributed system for with strong consistency, and instrument it with tracing.



# Programme structure

Debugging != Troubleshooting

```
< Debugging != Troubleshooting >
```



```
[default] 0:bash* 1:bash- 2:bash 3:bash
```

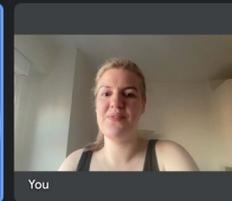
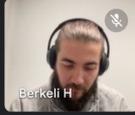
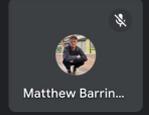
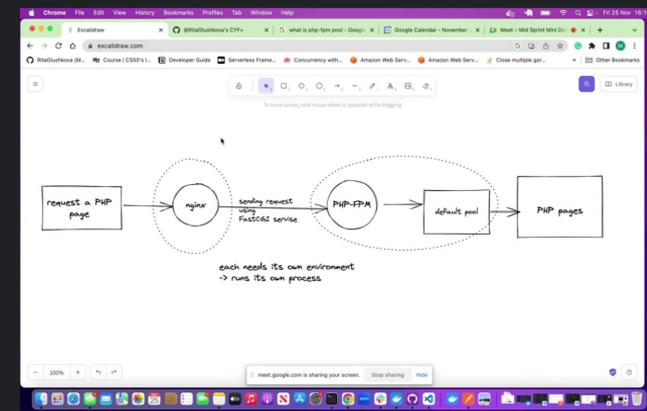


# Programme structure

**Planning** on Mondays and **demos** on Fridays

Daily standups on **Slack**

**Challenging** Pace



# Programme structure

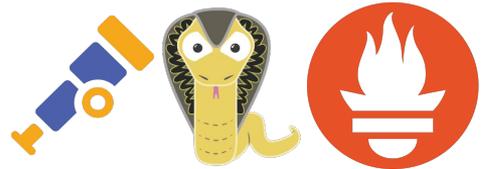
Untaught!



# Student experience

Projects grew with us, from cli tools to consensus algorithms

NGINX



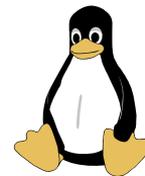
gRPC

GO



docker

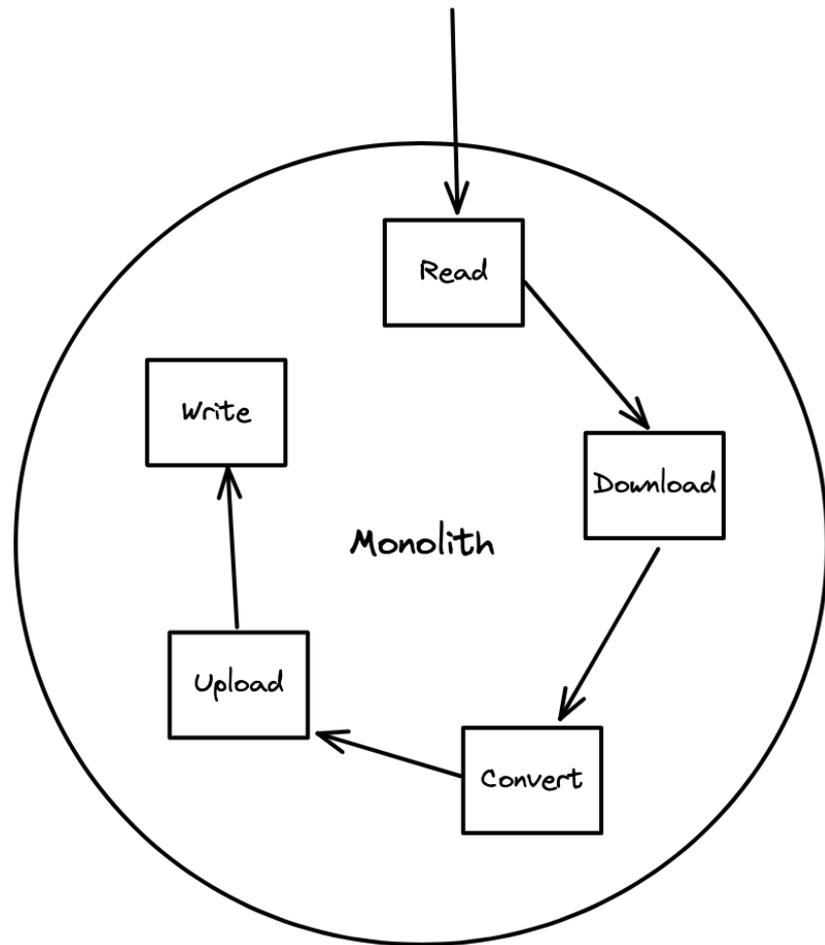
Grafana



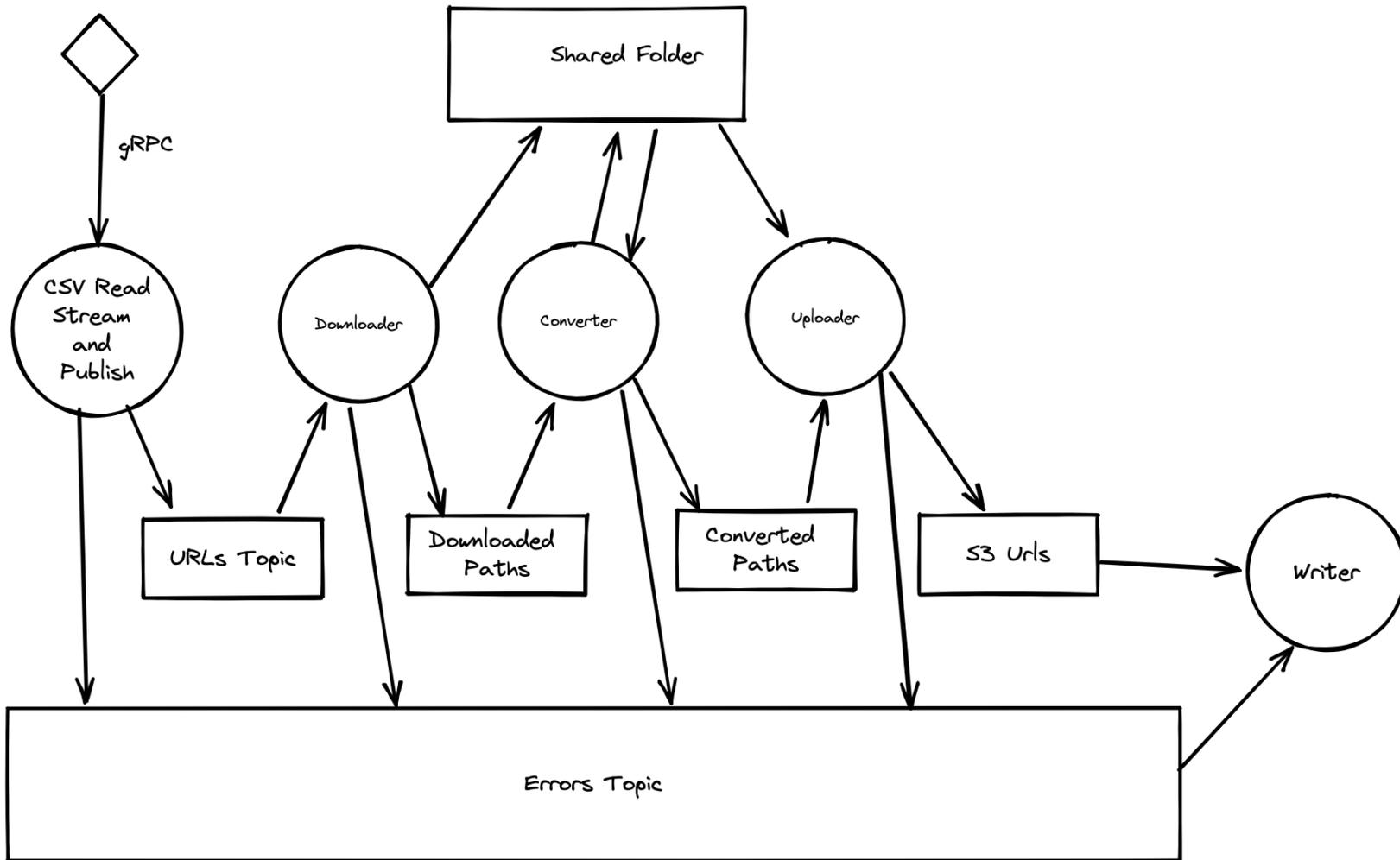
# Student experience

**Projects grew with us**, from cli tools to consensus algorithms

**Freedom to experiment** with different approaches



# CSV Reader Client



# Student experience

**Projects grew with us**, from cli tools to consensus algorithms

**Freedom to experiment** with different approaches

Mentor office hours and **code reviews** were vital



# Student experience

Communication skills via demos



# Student experience

**Communication** skills via demos

**Linux:** Fixing + Recording



# Student experience

**Mentorship** is game-changer



# Student experience

**Mentorship** is game-changer

**Financial support** made immersive learning possible



# Work placement

Navigating through the **onboarding journey**

**Terraforming Success:** Our First Project

Navigating Service Ownership via **Starter Tickets**



# Work placement

Awesome **Slack channels**

Participation in **core meetings**

It's not a sprint, but a **marathon**



# Conclusion



**<CODE>YOUR  
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# Conclusion

CYF+ has been a **great success!**



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A lot of work but it is rewarding.



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Being able to do it full-time is vital.



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CYF+ has been a **great success!**

A lot of work but it is rewarding.

Passing the course isn't the goal.

Being able to do it full-time is vital.

Trainees will need some support and mentoring.

# Call to action

Explore the open curriculum

[Link to repository](#)

Tell your team & connections!



Join the volunteering team

[Volunteer form](#)

Become a CYF+ corporate **partner!**



Questions?



# Slack is hiring!



<https://slack.com/careers>

 @radha /  [rkumari@slack-corp.com](mailto:rkumari@slack-corp.com) / @KumariRadha3  
 @margarita /  [mglushkova@salesforce.com](mailto:mglushkova@salesforce.com)  
 @berkeli /  [bhalmyradov@salesforce.com](mailto:bhalmyradov@salesforce.com)

