



KubeCon



CloudNativeCon

North America 2022

BUILDING FOR THE ROAD AHEAD

**DETROIT 2022**

# Hack Back; Let's Learn Security With CTFs!

*Natalia Reka Ivanko, Isovalent*  
*Lewis Denham-Parry, Chainguard*

# Mental Health

# \$ ./test.sh

```
#!/bin/sh
```

```
if false; then
```

```
    echo "No"
```

```
else
```

```
    echo "Yes"
```

```
fi
```

# \$ vi test.sh

```
#!/bin/sh
```

```
if [ false ]; then
```

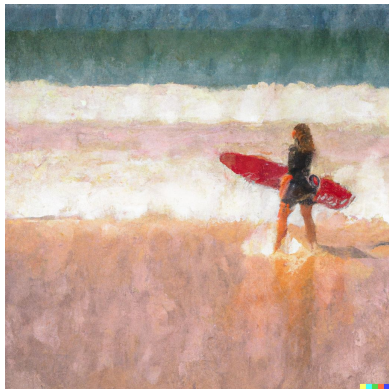
```
    echo "No"
```

```
else
```

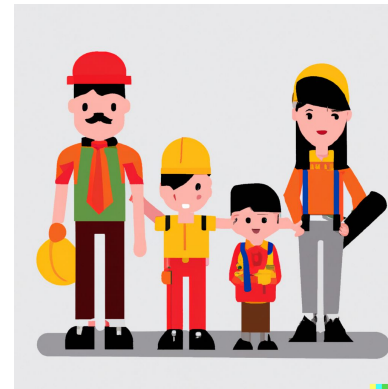
```
    echo "Yes"
```




```
fi
```

# \$ alias whoarewe="whoami"



- Natalia Reka Ivanko
- Product Security Owner
- Likes:
  - 
  - 
  - 
  - and being outside



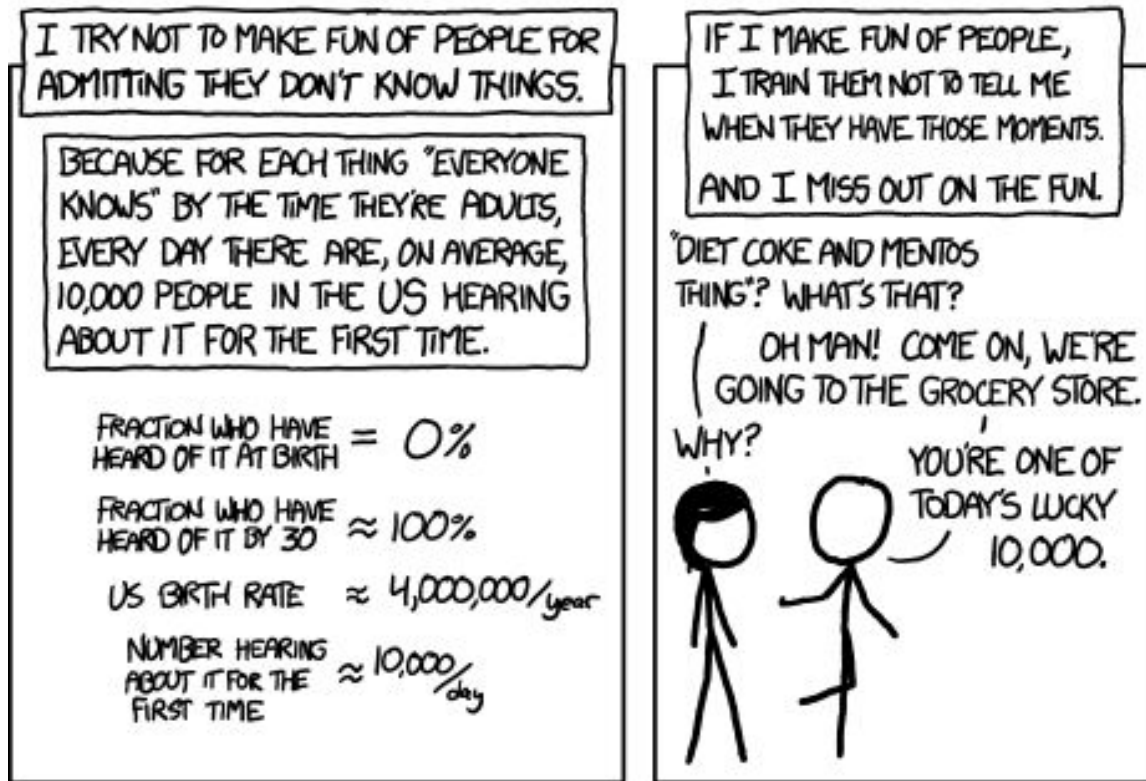
- Lewis Denham-Parry
- Security Architect
- Likes:
  - 
  - 
  - 
  - quite impressionable

\$ uname -s



ISOVALENT







*Somewhere between a company offsite at an escape room and the movie Saw IV*



<https://labs.openai.com/s/wp2INpGsUPtfPVYVMeqCTB5J>

<https://www.janeandfred.com/en/child-friendly-cardboard-saw.html>

# \$ find -name "flag.\*" -type f

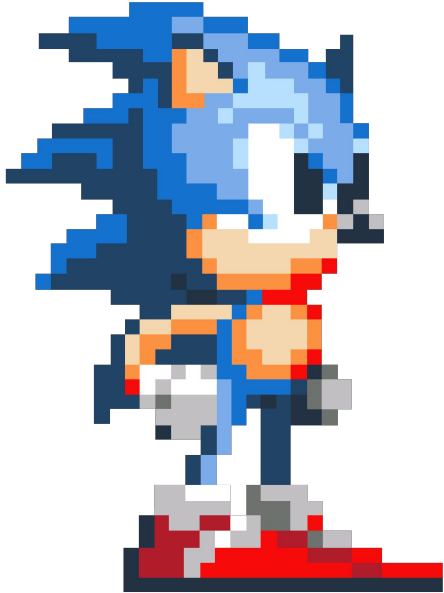


# \$ chmod +x #FF0000





# \$ w && htop



# \$ which sonic



# \$ mount | grep tmpfs





# \$ mount | rg tmpfs



# \$ bg slides





- Compromised GitLab
- Found credentials committed by accident
- Connected to cluster with credentials
- Checked RBAC
- Created a new pod with additional capabilities and utilities
- Became root on the VM
- Found flags on the VM
- Looked for other workloads
- Took down the traffic light system
- Found more credentials on the traffic like system
- Found a flag running a music service
- Had a great time, left a  $\frac{4}{5}$  rating on TripAdvisor
- Would recommend to colleagues, friends, and family

# \$ sudo apt update && sudo apt upgrade

- <https://google.github.io/kctf/>
  - Host CTF challenges on Kubernetes
- <https://www.hackthebox.com/>
  - Hands-On Penetration Testing
- <https://github.com/cncf/tag-security>
  - CNCF Security Technical Advisory Group
- <https://github.com/madhuakula/kubernetes-goat>
  - Kubernetes GOAT
- <https://youtu.be/przDcQe6n5o>
  - HACKING GOOGLE series
- <https://xkcd.com/>
  - Online comic for inspiration
- <https://www.mentalhealthhackers.org/>
  - Hackers helping Hackers

# \$ syft -o spdx-json twitter:latest

## Twitter

- [Freddie0x1](#)
- [Sys\\_call](#)
- [Thomrstrom](#)
- [Mauilion](#)
- [Jpts](#)
- [Wakewarduk](#)
- [ImJasonH](#)
- [Chainguard\\_dev](#)
- [isovalent](#)

## !Twitter

- Our partners
- Our friends
- Our family
- Zack Newman
- Sophia Mexi-Jones
- The person at the GitLab booth

## Resources

- [Repo](#)
- [Slides](#)



- [tiffanyfayj](#)



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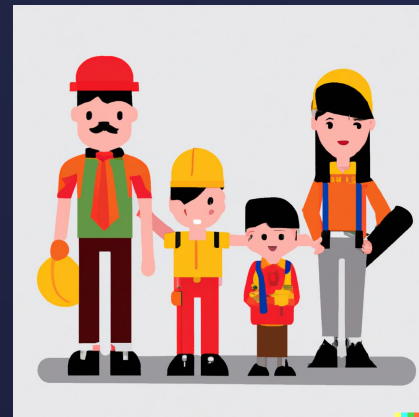
**DETROIT 2022**

**October 24-28, 2021**



**Natalia Reka Ivanko**

*Isovalent*



**Lewis Denham-Parry**

Security Engineer

*Chainguard*



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