



# TECHORAMA

# Make Developer Onboarding a Breeze with GitHub Codespaces

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# Pasi Huuhka

- DevOps Architect @ Zure
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CURRENTLY WORKING ON @ ZURE:

- Kubernetes with GitOps
- Championing GitHub
- Mentoring Projects & Leading the DevOps Guild
- Implementing SRE practices
- Driving ARM -> Bicep transition for all





Ghent, Belgium

Helsinki, Finland

**100%**  
Azure since 2011

**64**  
experts

**14,2**  
experience avg.

**4,6 / 5**  
customer satisfaction

**4**  
Azure MVPs  
+ 1 Regional Director

**81**  
employee NPS

**Microsoft  
Partner**  


Gold Application Development  
Gold Cloud Platform  
Gold Data Analytics  
Gold Data Platform  
Gold DevOps  
Gold Datacenter  
Gold Application Integration



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Modernization of Web Applications on Microsoft Azure

# Session Agenda

- You'll learn what Github Codespaces are and why you should think about using them
- We'll take a look at how you can customize your projects for everyone, dev environments as code
- And of course how you can get all your nifty personal configurations on top of it all

# Codespaces!

"YOUR INSTANT DEV ENVIRONMENT" (BETA)

The marketing team inside my head would explain codespaces as...

- Visual Studio or Visual Studio Code on your browser
- Available from any location, from any device
- Customizable for almost any need
- With your own tools
- ... and great GitHub integration

DISCLAIMER: I'm not very good at marketing



# Setting up your first codespace

# Some details

-  Can connect from your local VS Code instance too
-  Free during the beta, will be billed by use later
-  Multiple VM sizes available even during the beta, though specifics are still unclear
-  Still in beta, so some of the bugs we might spot are most likely still being polished out
-  GA in Q3-2021 according to [the GitHub public roadmap](#)
-  Works with full Visual Studio too!

# So what's my angle?

I believe codespaces will become a common tool for teams for

- Setting up environments as code, allowing everyone to have a similar development setup
  - Pretty much like containers do, without you actually having to containerize your application
  - Bugfixes to older projects no longer require (as much) arcane knowledge
- Arranging trainings
- Sharing cool VS code modules, of course

# Configuration

- Config isn't just a feature of codespaces, it's built in to VS code
  - The base is the `'.devcontainer'` folder in the root of your repo
  - You can actually use these for local development inside a container just as well, and reap a subset of the benefits
- You can use a default container, select from ready made ones, or just customize your own from scratch
- There are decent community made lists of devcontainers too, like [this set by Ben Coleman](#)

Let's create a configuration for our project

# But what about my cool toys?

DON'T WORRY, YOU CAN HAVE THOSE TOO

- Enter dotfiles and VS code settings sync
- `yourGitHubUser/dotfiles` repository will get synced to every codespace you create
- Whenever a file with a certain name, in my case "Setup.sh" is found in the dotfiles repository, it will be fun after(?) `devcontainer` customizations
- Documentation does say "before" but this doesn't seem to be the case
- If no setup file is found, files and directories starting with . will get symlinked to your home folder in codespaces
- You might want to consider using some tooling for this, but I've just written some spaghetti code

# Settings Sync

- Built in to VS Code (so NOT the extension in the marketplace)
- Allows you to log in to your GitHub or Microsoft account to sync all settings from keybindings to extensions and themes
- Sync is almost instant from one device to another
- Can ignore certain settings easily

# Dotfiles & Settings Sync demo

# Management & Security

- Security logs are available for you personally
- Audit logs are available for your organization
- Personal & Organizational Secrets can be set on a repository level for Codespaces
- Private Container Registry

on

Switch to another account ▾

## Audit log

Filters ▾

Search audit logs

↓ Export

### Recent events

-  [octokitten – codespaces.destroy](#)  
Deleted Codespace for octo-org/octokitten-octo-test  
[Australia](#) | 2 days ago
-  [frostysonic – codespaces.create](#)  
Created Codespace for octo-org/octokitten-octo-test  
[Australia](#) | 2 days ago
-  [OctoMona – org.codespaces\\_trusted\\_repo\\_access\\_granted](#)  
Granted Codespaces trusted repo access to all repositories on the Octo...  
[Australia](#) | 2 days ago
-  [OctoMona – codespaces.trusted\\_repositories\\_access\\_update](#)  
Updated codespace access and security settings to enable access to a...  
[Australia](#) | 2 days ago

# Useful Links

- [Register for the Beta](#)
- [Devcontainer development](#)
- [devcontainer.json reference](#)
- [Remote - Containers VS Code extension](#)
- [Personalization of Codespaces](#)
- [Dotfiles In-depth](#)
- [My Blog](#)



Slides: [zure.ly/pasi/techorama](https://zure.ly/pasi/techorama)

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