

Easy R Tutorials with Dev Containers

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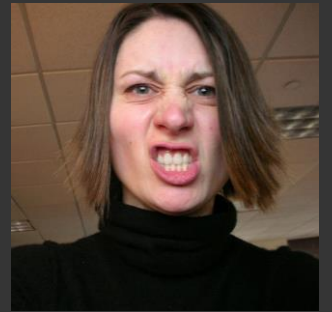


"It works on my machine..."



How do I install R?

Your code doesn't work!



But I'm running Debian...

I'm getting "out of memory errors"



Demo: GitHub Codespaces



Dev Containers

A standardized container setup, designed for running code

100% OSS. Integrated with GitHub, VS Code, CLI, ...

Same experience for every user

More info: <https://containers.dev/>

Where you can run Dev Containers

GitHub Codespaces

Available with GitHub Enterprise, GitHub Education

Local machines

Requires Docker or similar

Container hosts

Azure Container Apps, AWS, GCP, ...

Demo: VS Code / Docker



Container Config: Dockerfile

```
# R version: 4, 4.1, 4.0
```

```
ARG VARIANT="4"
```

```
FROM rocker/r-ver:${VARIANT}
```

```
RUN install2.r --error --skipinstalled --ncpus -1 \  
    devtools \  
    tidyverse \  
    ...
```

VS Code Config: devcontainer.json

```
"settings": {  
    "r.rterm.linux": "/usr/local/bin/radian",  
},  
  
"extensions": [  
    // Add Jupyter and R vscode extensions  
    "REditorSupport.r",  
    "rdebugger.r-debugger",  
    "ms-toolsai.jupyter",  
    "ms-toolsai.jupyter-renderers"  
],
```


Summary

Create tutorials / workshops as GitHub repositories

Include scripts, data, notebooks, instructions

Include and configure Dev Container

Software environment to support code

Participants: Run in GitHub CodeSpaces

or locally with VS Code "Remote Containers" extension

Microsoft Workshop Library

A library of AI/ML and Data workshops with Dev Container support and “train-the-trainer” videos

Topics include:

- [Explore and Analyze Data with R](#)
- [Introduction to Regression Models with R and Tidymodels](#)
- [Introduction to Classification Models with R and Tidymodels](#)

github.com/microsoft/workshop-library

About me

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"Bit" art by @ashleymcnamara

Thank you!

Slides, links and Dev Container:
github.com/revodavid/devcontainers-r



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