

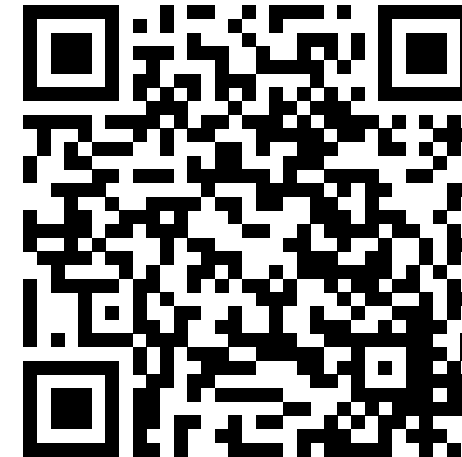
Welcome to MATLAB with Python

The event will begin shortly, before we begin remember:

Mute your mics
(is already off by default)



If you don't have MATLAB, scan the
code to get started



Making a Desktop App with MATLAB

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MATLAB Student Ambassador

Agenda

- Benefits of GUIs
 - App Designer Toolbox
 - Demo
 - Resources to learn more
 - **Ask questions whenever you want!**
- Presentation and other resources available here:

<https://github.com/simonthor/kth-matlab-ambassador/tree/master/Seminars/App%20with%20MATLAB>

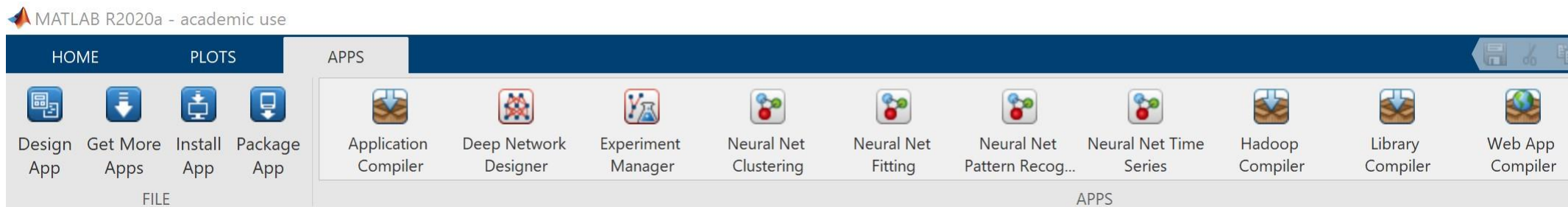


Why use GUIs?

Pros/Cons	m-files	Live Scripts	Desktop App
Easy to code	Yes	Yes	Requires toolbox
Anyone can understand	No (plain text)	Somewhat (LaTeX support)	Yes (GUI)
Interactive tools	No	Some support	Full support
Requires MATLAB to run	Yes	Yes	No
Easy to share to non-coders	No	Can be exported as pdf, docx etc	Yes, as desktop app
Share online	MATLAB online (requires MATLAB license)	MATLAB online (requires MATLAB license)	MATLAB Web App Server

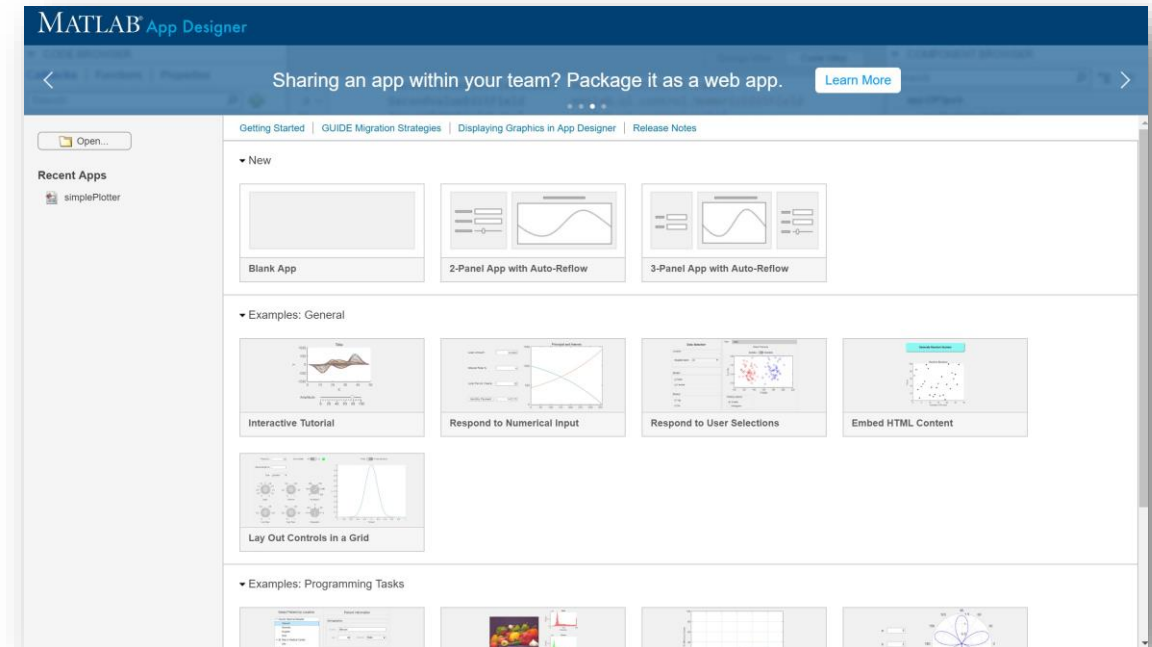
Apps already available on MATLAB

- Available in the 'Apps' section in the menu ribbon on top of MATLAB
- Can be included in toolboxes
- Can also download external apps
- Examples: Deep Network Designer, Curve Fitting App, App Designer etc.



App Designer Toolbox

- Design MATLAB apps on your own
 - From scratch or using a template
- Two interfaces:
 - Interactive (GUI)
 - Programmatical (Normal coding)
- Embed HTML
- Easily integrate commonly used widgets
 - Buttons, sliders, figure windows etc.



Share your app

If end-users have MATLAB:

- App will be stored as .mlapp by default
 - Run app similar to m-files in MATLAB
- Package app and into .mlappinstall file
 - Share on File Exchange
 - Appear on the `Apps` tab in MATLAB
- Upload to MATLAB Drive and run from browser

▪ If end-users do not have MATLAB:

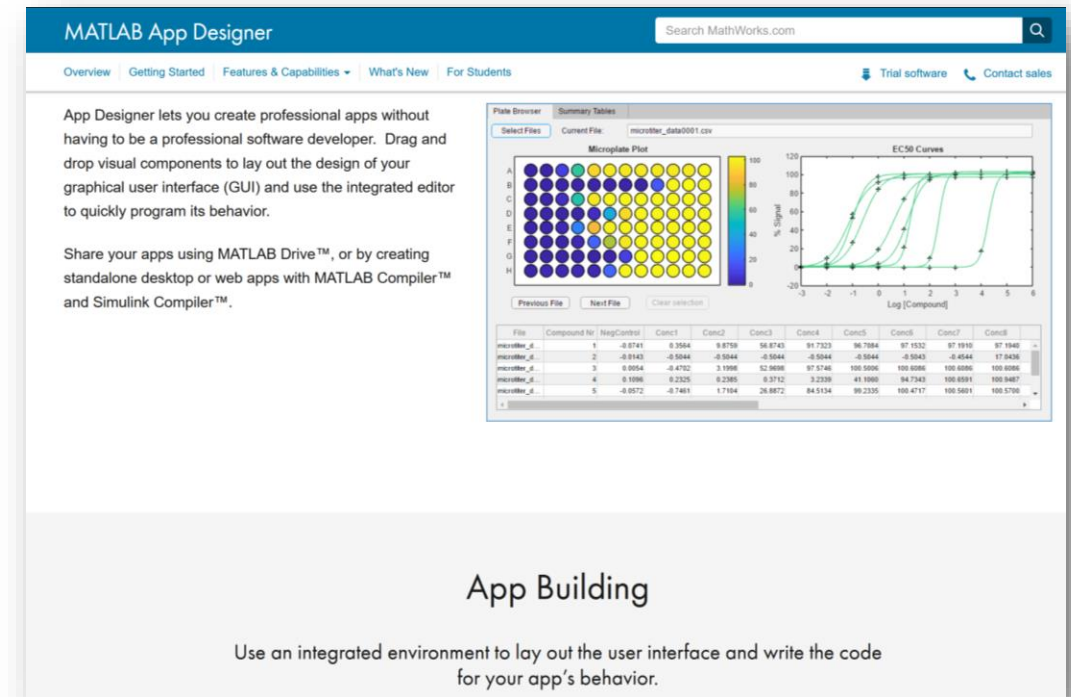
- Convert to stand-alone executable
 - I.e. .exe for Windows.
 - Works on Mac, Linux too
- Share online using MATLAB Web App Server
 - Upload and share with colleagues
 - Only for internal use, not on a public website

Demo

- Make a simple app with App Designer
 - Both interactively and through coding
- Try out the demo online:
 - <https://drive.matlab.com/sharing/2ae3e37f-ba21-4be9-aaae-5e2a90ebc688>
- Or download the demo here:
 - https://github.com/simonthor/kth-matlab-ambassador/blob/master/Seminars/App%20with%20MATLAB/appDesigner_demo.mla
[pp](#)

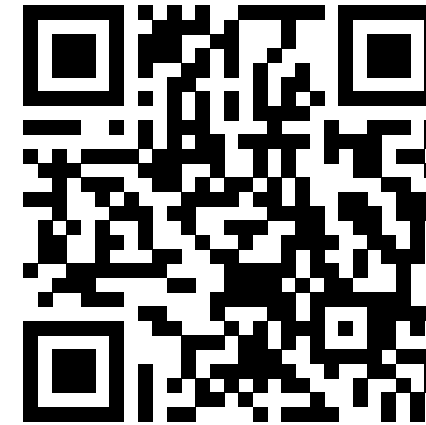
Other resources

- Try it out yourself!
 - **appdesigner**
- [MATLAB homepage](#)
- [How to share MATLAB apps](#)
- [How to make standalone apps](#)
- Have problems? Ask in the Facebook group :)

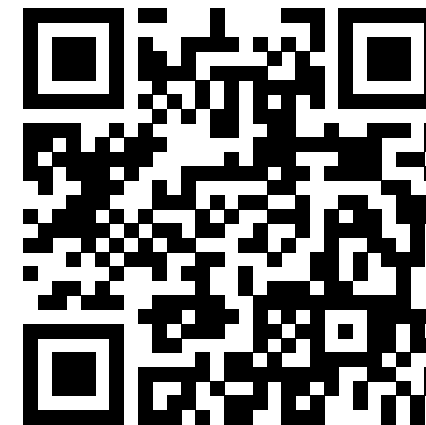


Social Media

- Join the MATLAB@KTH Facebook group
 - Stay up to date with all events being hosted
 - Posts about MATLAB & Simulink tips, resources etc.
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- Instagram: @matlab_kth
 - Post (outdated) memes
 - Suggest better memes!



facebook.com/groups/MATLAB.KTH



instagram.com/matlab_kth

Thank you for attending!

- MATLAB merch:
 - Handed out at the KTH library
 - **9th December 9:15-12:15** (tomorrow)
- How to get an Amazon gift card:
 1. Fill out this [form](#). Gift card will be sent to the email you enter here!
 2. Create a simple MATLAB app using the App Designer Toolbox. Does not need to be fancy!
 3. Post your .mlapp file in the Facebook group with a short description
 4. **The first 5 people to post will get Amazon gift cards worth 100 SEK!**

