Carnegie Mellon University

PYTHON FOR ALL: Democratizing Coding Mastery with AI Chatbot Support

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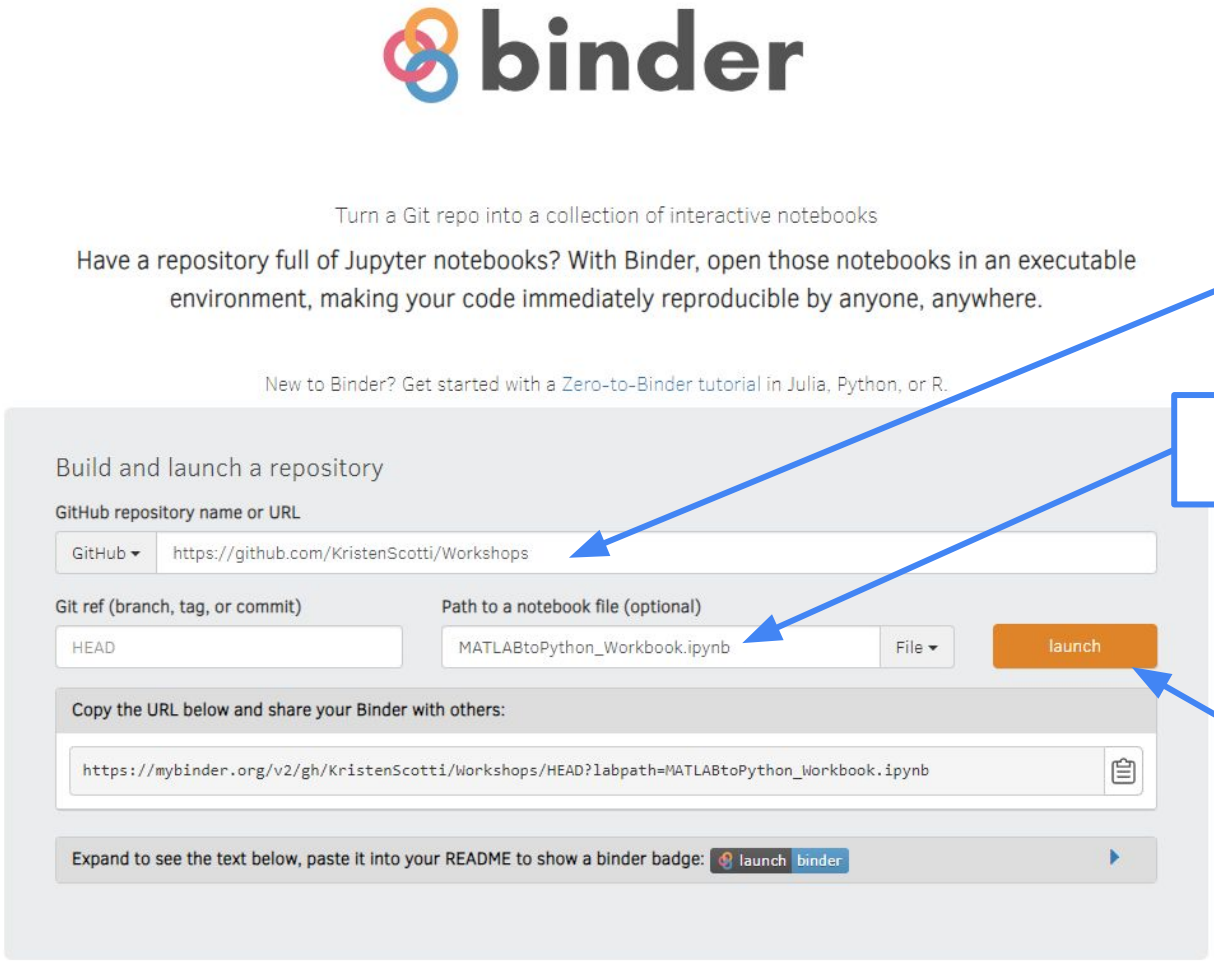
binder
mybinder.org
Turn a Git repo into a collection of interactive notebooks
Have a repository full of Jupyter notebooks? With Binder, open those notebooks in an executable environment, making your code immediately reproducible by anyone, anywhere.
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Build and launch a repository
GitHub repository name or URL
GitHub
https://github.com/KristenScotti/Workshops
Git ref (branch, tag, or commit)
HEAD
Path to a notebook file (optional)
MATLABtoPython_Workbook.ipynb
File
launch
Copy the URL below and share your Binder with others:
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https://github.com/KristenScotti/Workshops
Python_with_ChatGPT.ipynb
LAUNCH!

How often do you use tools like ChatGPT, Bard, or Co-pilot?

Please take a moment to answer the Zoom poll

All responses are anonymous

Learning Objectives

- **AI Fundamentals**: Understand key concepts and terminology related to generative AI.
- **Practical Application**: Use generative AI as a programming assistant to enhance coding efficiency, troubleshoot errors, and tackle projects with greater confidence.
- **Critical Evaluation**: Develop the ability to assess the accuracy, reliability, and usefulness of AI-generated code and solutions.
- **Ethical and Practical Evaluation**: Examine the ethical implications of generative AI, recognizing its strengths, weaknesses, biases, limitations, and potential for misuse.
- **Adaptability and Continuous Learning**: Cultivate skills to continuously adapt to advancements in AI technology.

What is Generative AI?

- Artificial intelligence systems capable of generating new content, such as text, images, and even music, based on the data they have been trained on.
- Large Language Models (LLMs) are a subset of generative AI that focuses on understanding and generating human language.

Cautions

- When selecting an AI chatbot, learn about how the corresponding company will use your data (and how much control you have over what data is accessed). Be cautious about sharing sensitive or proprietary information!
- Assume any information provided by a LLM is inaccurate, unless you are able to externally validate the information with reliable sources (read about “generative AI hallucinations”).
- Be aware of limitations–generative AI can assist, but not replace a deep understanding of programming concepts. Be aware of bias!
- Guard against over-reliance–use chatbots to *learn*
- Avoid using AI-generated content in ways that could harm others or violate ethical standards. Learn when you need to report using generative AI tools.

DEMONSTRATION

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Library Resources

Data and Code Support Workshops

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