



## Certificate of Achievement

# Matthias Giger

has completed the following course:

### PROGRAMMING WITH GUIS

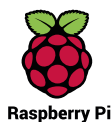
RASPBERRY PI FOUNDATION AND NATIONAL CENTRE FOR COMPUTING EDUCATION

This course provided an introduction to programming with graphical user interfaces, using Python and the guizero library. It covered the use of widgets and events to create an interactive GUI-based app, as well as the use of time based events. Learners finished by creating a picture-matching game.

3 weeks, 2 hours per week



**Dr Sue Sentance**  
Chief Learning Officer  
Raspberry Pi Foundation



The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit [futurelearn.com/proof-of-learning/certificate-of-achievement](https://futurelearn.com/proof-of-learning/certificate-of-achievement).

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from Raspberry Pi Foundation and National Centre for Computing Education.



Raspberry Pi



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#### **STUDY REQUIREMENT**

3 weeks, 2 hours per week

#### **LEARNING OUTCOMES**

- Experiment with different widgets that can be used to build a GUI
- Develop a GUI that responds to the user through the use of events
- Explain how event driven programming works, and the differences between an event driven program and a procedural program
- Produce a countdown timer using guizero's built-in methods
- Design several different GUIs, including a text editor and a picture-matching game

#### **SYLLABUS**

- Using widgets to build a GUI
- Responding to user inputs using events
- Reading and modifying the properties of widgets
- Designing GUIs and using boxes and either auto or grid layouts to implement them
- Adjusting the appearance of your GUI to improve the user experience
- Using time-based events
- Decomposing a project to make it more manageable