

Burkhard A. Meier

Python GUI Programming Cookbook

Second Edition

Develop beautiful and powerful GUIs using the Python programming language



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Python GUI Programming Cookbook

- Second Edition

Explore the beautiful world of GUI development using the Python programming language. You will learn how easy it is to get started, and you might be surprised how advanced you can become with just a small amount of coding. GUI development using Python is not a very well-known subject. The built-in tkinter GUI framework was limited, but with the latest versions of Python 3 and tkinter, all of this has dramatically changed.

This book will start with the very basics of creating a fully functional GUI in Python with only a few lines of code. Each and every recipe adds more widgets to the GUIs we are creating. While the cookbook recipes all stand on their own, there is a common theme running through them. As our GUIs keep expanding, using more and more widgets, we start to talk to networks, databases, and graphical libraries that greatly enhance our GUI's functionality.

Things you will learn:

- Create the GUI Form and add widgets
- Arrange the widgets using layout managers
- Use object-oriented programming to create GUIs
- Create Matplotlib charts
- Use threads to talk to networks
- Talk to a MySQL database via the GUI
- Perform unit testing and internationalization of the GUI
- Extend the GUI with third-party graphical libraries
- Get to know the best practices of creating GUIs

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\$ 49.99 US
£ 41.99 UK

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BIRMINGHAM - MUMBAI

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Second Edition

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First published: November 2015

Second edition: May 2017

Production reference: 1190517

Published by Packt Publishing Ltd.

Livery Place

35 Livery Street

Birmingham

B3 2PB, UK.

ISBN 978-1-78712-945-0

www.packtpub.com

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About the Author

Burkhard A. Meier has more than 17 years of professional experience working in the software industry as a software tester and developer, specializing in software test automation development, execution, and analysis. He has a very strong background in Python 3 software test automation development, as well as in SQL relational database administration, the development of stored procedures, and debugging code.

While experienced in Visual Studio .NET C#, Visual Test, TestComplete, and other testing languages (such as C/C++), the main focus of the author over the past five years has been developing test automation written in Python 3 to test the leading edge of FLIR ONE (now in its third generation) infrared cameras for iPhone and Android smart phones and handheld tablets, as well as assuring the quality of FLIR bolometer IR camera platforms.

Being highly appreciative of art, beauty, and programming, the author developed GUIs in C# and Python to streamline everyday test automation tasks, enabling these automated tests to run unattended for weeks, collecting very useful data to be analyzed, automatically plotted in graphs, and e-mailed to upper management upon completion of nightly automated test runs.

His previous jobs include working as a senior test automation engineer and designer for InfoGenesis (now Agilysys), QAD, InTouch Health, and FLIR Systems.

You can get in touch with him through his LinkedIn account, <https://www.linkedin.com/pub/burkhard-meier/5/246/296>.

I would like to thank all truly great artists, such as Leonardo da Vinci, Charles Baudelaire, Edgar Allan Poe, and so many more for bringing the presence of beauty into our human lives. This book is about creating very beautiful GUIs written in the Python programming language, and it was inspired by these truly great artists.

I would like to thank all of the great people that made this book possible. Without any of you, this book would only exist in my mind. I would like to especially thank all of my editors at Packt Publishing: Sonali, Anurag, Prashant, Vivek, Arwa, Sumeet, Saurabh, Pramod, Nikhil, and so many more. I would also like to thank all of the reviewers of the code of this book. Without them, this book would be harder to read and apply to real-world problems. Last but not least, I'd like to thank my wife, our daughter, and our parents for the emotional support they provided so successfully during the writing of the second edition of this book. I'd also like to give thanks to the creator of the very beautiful and powerful programming language that Python truly is. Thank you Guido.

About the Reviewer

Mohit (mohitraj.cs@gmail.com) is a Python programmer with a keen interest in the field of information security. He completed his bachelor's in technology in computer science from Kurukshetra University, Kurukshetra, and master's in engineering (2012) in computer science from Thapar University, Patiala. He is a C|EH, ECSA from EC-Council USA and former IBMer. He has published several articles in national and international magazines. He is the author of Python Penetration Testing Essentials and Python Penetration Testing for Developers, also by Packt Publishing.

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