



PyCon 2019

Debug Python with Visual Studio Code: Tips and Tricks Tutorial

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Platforms	Linux, macOS, Windows, Raspbian Buster
Services	Azure IoT Central
Tools	Visual Studio Code Insiders Edition
Hardware	Raspberry Pi 4 . 4GB model required for 20 Users. Raspberry Pi Sense HAT , Optional: Raspberry Pi case , active cooling fan
Language	Python
Date	As of August, 2019

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Tutorial Description

Python Debugging: Pro Tips and Not-So-Obvious Tricks

If you are anything like me, when you started with Python 'print' was the debugger of choice. But you likely found that was slow, tedious, and didn't cut it for more complex problems.

Let's dive into methods for debugging remote python in environments such as CircuitPython, Raspberry Pi, Docker containers, remote Linux Servers, and Jupyter Notebooks.

You'll learn how to sync code to devices, attach debuggers, and step through your code. And existing (or newly forged) Jupyter fans will learn tips to debug your notebooks.

This fun session covers a range of scenarios and empowers you to supercharge your debugging techniques!

Personal Computer Requirements

1. Bring your own laptop running one of the follow Operating Systems:
 - Linux
 - See [Installing Visual Studio Code on Linux](#)
 - macOS
 - Windows 10 (1809+).
 - Install the OpenSSH Client from PowerShell as Administrator.

```
Add-WindowsCapability -Online -Name OpenSSH.Client
```

2. You will have access to a network shared Raspberry Pi. Feel free to bring your own Raspberry Pi (model with WiFi required), must have a unique network/host name.

Software Installation



This hands-on lab uses Visual Studio Code. Visual Studio Code is a code editor and is one of the most popular **Open Source** projects on GitHub. It is supported on Linux, macOS, and Windows.

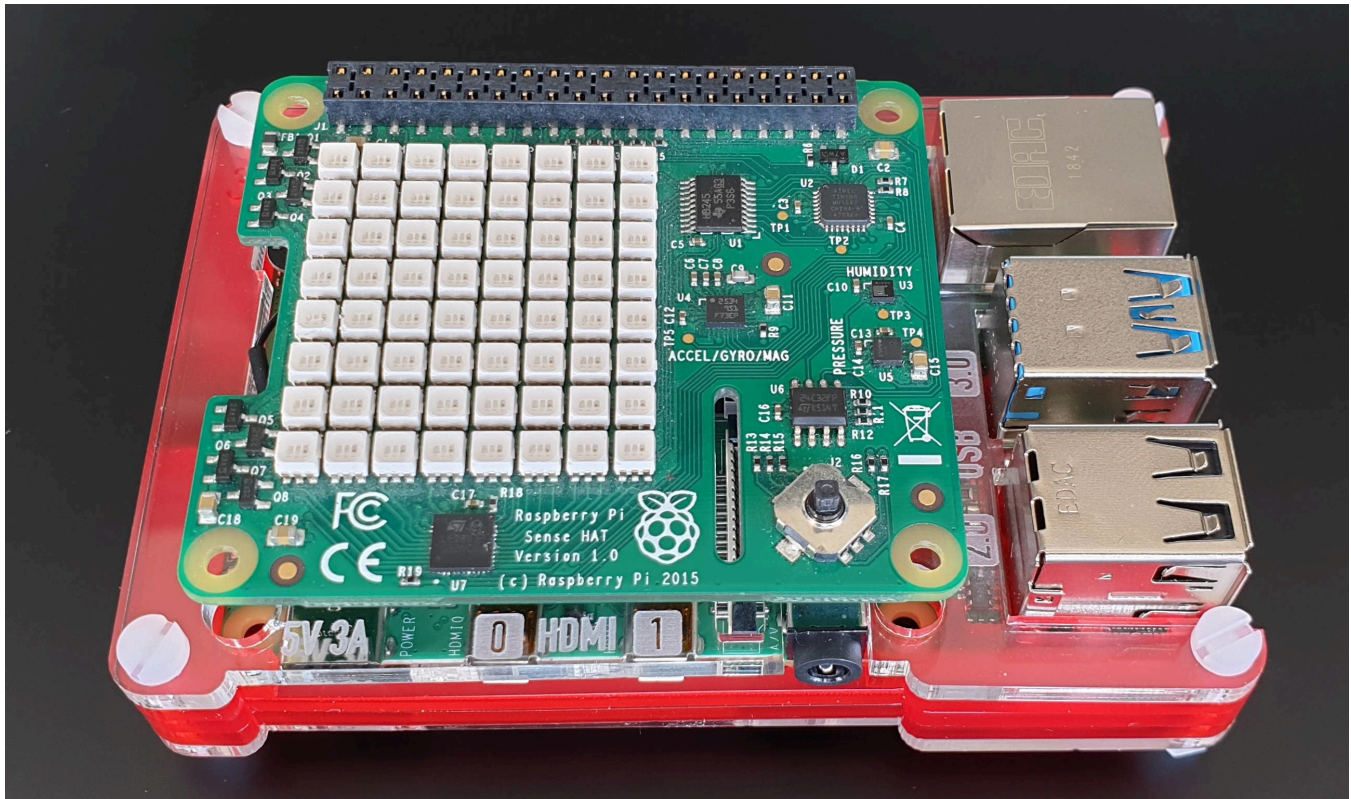
Install:

1. [Visual Studio Code Insiders Edition](#)
As at August 2019, **Visual Studio Code Insiders Edition** is required as it has early support for Raspberry Pi and Remote Development over SSH.
2. [Remote - SSH Visual Studio Code Extension](#)

For information on contributing or submitting issues see the [Visual Studio GitHub Repository](#). Visual Studio Code documentation is also Open Source, and you can contribute or submit issues

from the [Visual Studio Documentation GitHub Repository](#).

Debugging Web and Docker Container Apps on a Raspberry Pi



- [Lab 1: Remote Debugging a Raspberry Pi Flask Web Application](#)
- [Lab 2: Raspberry Pi, Python, IoT Central, and Docker Container Debugging](#)

Dev.to (Works with Google Translate)

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