

PYTHON IN AFRICA

Jessica Upani

TWITTER: @JessicaUpani

EMAIL: pynamsociety@gmail.com

Importance of Scientific Programming

- Problems cannot be solved by traditional experimental or theoretical means only anymore.
- It may be too expensive or time consuming to solve problems using traditional methods.

Why Python?

- Python is straight forward and easy to understand.
- It's one of the world's most popular language.
- Python has a large community globally and there is excellent documentation online.
- Python has great features for doing calculations with vectors and matrices, and features for making graphs and computer graphics.
- Python is open-source, hence its source code is open to the public for contributions.

**HOW CAN I GET INVOLVED IN THE
PYTHON COMMUNITY?**



Python Africa

(<https://africa.python.org>)

- 2006 – Cape Town Python User Group started. PyConZA followed in 2012. Making South Africa the earliest active Python community in Africa.
- 2014 – 2015 – Cameroon, Kenya and Namibia followed with Python conferences and other Python related events in their respective countries.
- 2016-2017 – Zimbabwe, Nigeria, Ghana also followed.
- There are fast growing communities in Mozambique, Zambia, Botswana, Ethiopia, Rwanda, Uganda, etc too.
 - **PyCon Africa 2019 – Uganda, June 2019**

Research Software Engineers (RSE) Association

Who is it?

- RSE's are people in Academia who combine expertise in programming with an intricate understanding of research.

RSE's – How do they start?

- Researchers who spend time developing software to progress their research. Because they enjoy this work and have invested in developing specialist skills, they continue to focus on software and its use in research.
- Others start off from a more conventional software-development background and are drawn to research by the challenge of using software to further research.

RSE Association – What is it?

- It is an association working to create a community and raise awareness of the Research Software Engineers community.
- <https://rse.ac.uk/>

RSE Association – AIMS

- They campaign for the recognition and adoption of the RSE role within Academia along with the need for appropriate reward and career opportunities.
- They also organize regular events to allow RSE's to meet, exchange knowledge and collaborate.
- <https://rse.ac.uk/>

THE CARPENTRIES – Who are they?

- The Carpentries are a diverse, global community of volunteer instructors, helpers, trainers, maintainers and more.
- <https://carpentries.org/>

THE CARPENTRIES – What do they do?

- They teach fundamental coding and data science skills worldwide.
- They teach interactive, hands-on, two-day workshops for learning core skills in research computing.
- <https://carpentries.org/>

THE CARPENTRIES – Data Carpentry

- Data carpentry is domain specific, and focus on teaching skills for working with data effectively and reproducibly.
- CURRICULUM: Ecology, Genomics, Geospatial data, Image analysis, Astronomy, etc.
- <https://carpentries.org/>

THE CARPENTRIES – Software Carpentry

- Software carpentry teach program design, version control, testing and automation.
- CURRICULUM: Unix shell, Version control, Programming with R/Python, R for Reproducible Scientific Analysis, etc.
- <https://carpentries.org/>

Python Namibia (PYNAM)

- Started 2015.
- They organize workshops, meet-ups and conferences throughout the year.
- They train high school learners how to code with Python.
- They give assistance to anyone who is struggling with Python.
- Their core goal is to connect the community.

- <https://pynamibia.org/>

- TWITTER: @PythonNamibia, @PyConNA



The logo for Python Namibia Society features the word 'PYNAM' in large, stylized letters. The 'P' and 'Y' are blue, while the 'N', 'A', and 'M' are green. Below this, the word 'SOCIETY' is written in a smaller, grey, sans-serif font, with each letter centered under a corresponding letter of 'PYNAM'.

PyCon Namibia (<https://na.pycon.org/en/>)





Thank you