

European Python Programming Conference



# EUROPYTHON

2021

Jul 26 - Aug 1

Online

European Python Programming Conference





EUROPYTHON  
2021



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# Welcome to EuroPython 2021 Online!





We would like to welcome you to our 20th EuroPython conference, the highlight of the year for the European Python community. We hope you'll enjoy the keynotes, talks, sprints, and many other events we have planned for you!

EuroPython started in 2002 in Charleroi, Belgium, as the first completely community organized major Python conference, and has been touring Europe for 18 years now. We had stops in Gothenburg (Sweden), CERN (Switzerland), Vilnius (Lithuania), Birmingham (UK), Florence (Italy), Berlin (Germany), Bilbao (Basque Country, Spain) Rimini (Italy), Edinburgh (UK), Basel (Switzerland) and online for 2020 and 2021.

Since the event first started in 2002, it has become a yearly fixture for many Python enthusiasts and professionals – growing from 240 attendees to over 1200 in recent years.

Like other organisations, we made the difficult decision to cancel the in-person conference due to COVID-19. However, like last year, we still wanted to provide a platform for the community to engage with, and are running an online conference for the second year in a row. We hope to see more than 1,000 attendees made up of worldwide Python developers, students and enthusiasts to celebrate the language and community.

To address the growing size and importance of the conference, we decided to change

how it was organized. EuroPython has had a workgroup-based management structure for a few years, which has been established to work effectively. Its strengths are consistency between years, and has enabled more volunteers to engage with the event from across the world.

Everyone who would like to participate is welcome to join the EuroPython organizers. We appreciate every bit of help. <sup>[1]</sup>

You can find many of the organisers and volunteers responsible for making EuroPython 2021 happen on our Matrix server. They are tagged as "Admin"; If you meet them, please share a smile to show your support!

Enjoy,

--

The EuroPython Organizers

EuroPython Team

<https://ep2021.europython.eu/europython/team/>

EuroPython Society

<http://www.europython-society.org/>



EuroPython  
Society

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<sup>[1]</sup> Please see <http://www.europython-society.org/workgroups> for details on joining the EuroPython Workgroups and <http://www.europython-society.org/application> for how to join the EuroPython Society, the organization behind the EuroPython conference series.

A photograph of two young men in a server room. One man is leaning over the other, both looking at a computer monitor. The man in the foreground is smiling and has his hand to his chin. The background shows server racks and other monitors.

optiver 

## Write your most exciting future

Every day at Optiver is a chance to build, code, and develop something that pushes the boundaries of technological possibility. We're a global market maker and solving complex problems with simple solutions is a big part of how we use Python. If you're looking for a chance to collaborate with some of the brightest minds around, your future could be as one of our traders, engineers or researchers. We're strong believers in continual improvement, in what we do and who we are. Bring your dynamic thought and pioneering spirit and join our mission to continually improve global financial markets.

To learn more about our career opportunities visit [optiver.com](https://optiver.com)

## Discover how Python helps Optiver people make an impact.



"My primary challenge is automating repetitive operational tasks, and empowering developers to be more effective. I use Python to build web UIs, command line tools, applications, and anything else that solves unforeseen problems."

**Joel Christiansen**  
Site Reliability Engineer

"High volume and precision data needs to be delivered to users across the company in soft real time. Python helps us manage our data pipelines with job scheduling, monitoring, and quality control. Our end users use in-house Python APIs to access our petabyte-sized data lake."

**Zuotian Tatum**  
Team Lead, Infrastructure Data



"Every day we analyse, monitor, and micro-optimize trading strategies based on vast data sets in multiple heterogeneous formats. I use the Python scientific computing stack for analysis, and Jupyter notebooks for interactive programming, data analysis, and visualisations."

**Matthijs Snel**  
Researcher



[ **matrix** ]



The EuroPython 2021 conference system is based on [Matrix](#), an open source chat system written in Python. Matrix organises chats in a series of "rooms" or channels, pretty much the same way that Discord or any other chat system does. We have created one chat room per conference track, plus some extra ones for helpdesk, sprints, random chat and more.

In addition, Matrix allows one to embed widgets in chat rooms, enabling further functionality such as video chat and more.

We plan on having the talk and training video streams available as widgets in their respective chat rooms.

In order to access Matrix you simply need a web browser. We recommend a Chrome-based browser such as Chromium for best compatibility and experience. You can find a quick [video tutorial](#) on how to access our conference system on the conference website.



We are developers, architects, engineers, product owners, designers, and digital entrepreneurs. 🧑

We have a serious long term relationship with Python, Django and React. ❤️


We are international, nomads, everywhere. 🌍

Open positions:

**React**  
Junior / mid level React Developer

**Django**  
Senior Python Django developer


**Product**  
Digital project manager

 Czech Republic

Peroutkova 290/5  
60200 Brno

 Slovak Republic

Murgašova 1407/3  
04001 Košice

 Belgium

Emiel Vanderveldestraat 159  
2830 Willebroek

## Building authentication yourself takes time.

If you want to do something else (like eat tacos, watch Loki, or finish work on time) let us build it for you.



Come chat with Developer Advocate and Python enthusiast, Jess Temporal, in the Auth0 booth.



Are you ready for the Login Challenge?



# Schedule overview



"CEST"	Optiver	Brian	Ni
08:45	Registration		
09:15	Opening Session - Training Days		
09:30	<b>Zac Hatfield Dodds (HypoFuzz):</b> Introduction to Property-Based Testing	<b>Anastasiia Tymoshchuk (Scoutbee GmbH), Bojan Miletic (Softerrific):</b> Transcend the realms of development - A day in life of a software architect	<b>Mike Müller (Python Academy):</b> Understanding Decorators and Context Managers
11:00	Coffee break		
11:15	<b>Zac Hatfield Dodds (HypoFuzz):</b> Introduction to Property-Based Testing	<b>Anastasiia Tymoshchuk (Scoutbee GmbH), Bojan Miletic (Softerrific):</b> Transcend the realms of development - A day in life of a software architect	<b>Mike Müller (Python Academy):</b> Understanding Decorators and Context Managers
12:45	Lunch		
13:15	<b>Martin Christen (FHNW):</b> Creating 2D Applications and Games	<b>Jacob Tomlinson GB (NVIDIA):</b> GPU development with Python 101	<b>Eli Holderness (Anvil):</b> Speedrunning Web Development: A Full Stack App in 10 minutes
14:45	Coffee break		
15:00	<b>Martin Christen (FHNW):</b> Creating 2D Applications and Games	<b>Jacob Tomlinson GB (NVIDIA):</b> GPU development with Python 101	<b>Eli Holderness (Anvil):</b> Speedrunning Web Development: A Full Stack App in 10 minutes



“CEST”

Parrot

Argument-Clinic

Silly-Walks

09:30

**Radoslav Georgiev (HackSoft):**  
Building a practical Slack bot with Python & FastAPI (Training)

**Henk Boelman (Microsoft):**  
Build and deploy PyTorch models with Azure Machine Learning

Django Workshop

11:00



Coffee break

11:15

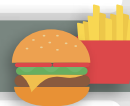
**Radoslav Georgiev (HackSoft):**  
Building a practical Slack bot with Python & FastAPI (Training)

**Henk Boelman (Microsoft):**  
Build and deploy PyTorch models with Azure Machine Learning

Django Workshop

12:45

Lunch



13:15

**Cristian Mitroi (Jina AI), Maximilian Werk:** Build a deep learning-powered image search system with Jina + BigTransfer (BiT)

**Adam Kasperowicz (Optiver), Julian Brendl (Optiver):** Activate Your Interest in Coding for Algorithmic Trading

Django Workshop

14:45






Coffee break

15:00

**Cristian Mitroi (Jina AI), Maximilian Werk:** Build a deep learning-powered image search system with Jina + BigTransfer (BiT)

**Adam Kasperowicz (Optiver), Julian Brendl (Optiver), Gregory Pandeckis (Optiver):** Activate Your Interest in Coding for Algorithmic Trading

Django Workshop

"CEST"	Optiver	Brian	Ni
09:00	Registration		
09:15	Morning announcements		
09:30	<b>Rodrigo Girão Serrão (Dyalog Ltd):</b> Implementing a Neural Network from Scratch	<b>Samuel Farrens (CosmoStat, CEA Paris-Saclay):</b> The Anatomy of a Python Class	<b>Jonathan Fernandes:</b> Docker for Machine Learning Engineers
11:00	Coffee break 		
11:15	<b>Rodrigo Girão Serrão (Dyalog Ltd):</b> Implementing a Neural Network from Scratch	<b>Samuel Farrens (CosmoStat, CEA Paris-Saclay):</b> The Anatomy of a Python Class	<b>Jonathan Fernandes:</b> Docker for Machine Learning Engineers
12:45	Lunch 		
13:15	<b>Mia Polovina:</b> Climate data analysis with xarray and cartopy	<b>Marco Bonzanini (Bonzanini Consulting Ltd):</b> Data Analysis with pandas - Workshop	<b>Florian Bruhin (Bruhin Software):</b> Introduction to pytest
14:45	Coffee break 		
15:00	<b>Mia Polovina:</b> Climate data analysis with xarray and cartopy	<b>Marco Bonzanini (Bonzanini Consulting Ltd):</b> Data Analysis with pandas - Workshop	<b>Florian Bruhin (Bruhin Software):</b> Introduction to pytest

“CEST”

Parrot

Argument-Clinic

Silly-Walks

09:30

No Training/Workshop

**Bernat Gabor (Bloomberg LP):**  
Python Packaging Demystified

Beginners' Day run by HumbleData

11:00



Coffee break

11:15

No Training/Workshop

**Bernat Gabor (Bloomberg LP):**  
Python Packaging Demystified

Beginners' Day run by HumbleData

12:45

Lunch



13:15

No Training/Workshop

**Cheuk Ho (TerminusDB):**  
Knowledge graph data  
modelling with TerminusDB

Beginners' Day run by HumbleData

14:45



Coffee break

15:00

No Training/Workshop

**Cheuk Ho (TerminusDB):**  
Knowledge graph data  
modelling with TerminusDB

Beginners' Day run by HumbleData



"CEST"	Optiver	Brian	Ni
08:45	Registration		
09:00	Opening Session - Conference		
09:15	<div style="display: flex; align-items: center; justify-content: center;"> <div style="background-color: #f96; padding: 5px; border-radius: 10px; width: 80%;">                     Keynote 1                      Nobody expects the Spanish inquisition by <b>Pablo Galindo Salgado (Bloomberg LP)</b> </div> </div>		
10:00	<b>Sebastian Witowski (Sebastian Witowski):</b> Python Versions and Dependencies Made Easy	<b>Xavier Thompson (Nexedi):</b> Extending Cython with GIL-free types	<b>Haki Benita (Haki Benita):</b> Taming Nondeterminism with Dependency Injection
10:30	<b>Sebastian Buczyński (Webinterpret):</b> Refactoring legacy Django app using OOP	<b>Stefan Behnel, David Woods:</b> Fast native data structures: C/ C++ from Python	<b>Irina Grechikhina (CloudLinux):</b> Sentry as a way not to be afraid
11:15	Coffee break		
11:30	<b>Antonis Christofides (Self-employed):</b> Why you always had trouble understanding metaclasses	<b>Markus Holtermann (micro-biolytics):</b> An Introduction to Kubernetes	<b>Kracekumar (Airbase):</b> Type Check your Django app
12:00	<b>Alexys Jacob (Numberly):</b> Create beautiful and localized documentations and websites using MkDocs + Github	<b>Christian Burger (Trayport):</b> (Reserved for Trayport Sponsored Talk)	<b>Joel Christiansen (Optiver):</b> Python packaging
12:30	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"></div> <div style="width: 30%;"></div> <div style="width: 30%;"></div> </div>		
12:45	Lunch		

“CEST”

Parrot [Data Science]

Argument-Clinic  
[Interactive]

10:00

**Chiin-Rui Tan (Rho Zeta AI) ,  
Sara Nunnington:**  
How Scientific Computing is  
advancing the world of Football

10:30

**Nabanita Roy (ACI Worldwide):**  
Leveraging Linked Data using  
Python and SPARQL

11:15



Coffee break

**Mauro Pelucchi:**  
Data Ingestion and Big Data

11:30

**Sylvain Marié (Schneider  
Electric):**  
Powerful tests and reproducible  
benchmarks with 'pytest-cases'

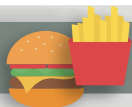
12:00

**Dhanshree Arora (Eder Labs  
R&D Pvt Ltd):**  
Federated Machine Learning  
with Python

12:15

12:45

Lunch



**Paula Dozsa (imagiLabs):**  
Creative Coding with imagiLabs

13:00



“CEST”

Optiver

Brian

Ni

13:15

**Anastasiia Tymoshchuk (Scoutbee GmbH):** Continuous Documentation for your code

**Ben Nuttall (BBC News Labs):** Innovation in the newsroom

**Miroslav Šedivý (Trayport):** Should We Return to Python 2?

13:45

**Tobie Langel (UnlockOpen):** Towards a sustainable solution to open source sustainability

**Marcin Wojnarski (Paperity):** Hypertag: an Indented Language for easy HTML Generation & Web Templating

**Nithish Raghunandan (Couchbase):** Virtual Tourism In Covid Times

14:15

**Abhilash Majumder (MSCI (Morgan Stanley Capital International)):** Introduction to Quantum Deep Learning

**Mar Bartolome (coconauts):** Hiring Demystified

**Rodrigo Girão Serrão (Dialog Ltd.):** Pydon'ts

15:00

 Coffee break

15:15

**Maria Jose Molina-Contreras (INFARM):** DIY Home Automation with Microcontrollers and CircuitPython

**Koketso Motse (Billionaire developers):** All things esports and competitive gaming and game development in Python

**Paolo Melchiorre (20tab):** Django with PostgreSQL superpowers

15:45

**Carlos Villavicencio (Stack Builders):** Functional Programming inside OOP? It's possible with Python

**Jose Haro Peralta (Algorizm Ltd):** Documentation-driven development for Python web APIs

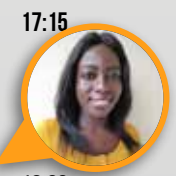
**Tonya Sims (Vonage):** Faceoff Fun with Python Frameworks: FastAPI vs Flask

16:25

Lightning Talks 1

17:15

Keynote 2  
**Abigail Dogbe**  
Python in a world of Pan-Africanism



18:00

“CEST”

Parrot [Data Science]

Argument-Clinic [Interactive]

13:00

13:15

**Sebastian Zeeff (Ordina):** Introducing Asynchronous SQLAlchemy

**Paula Dozsa (imagiLabs):** Creative Coding with imagiLabs

13:45

**María Andrea Vignau (Poder Judicial de la Provincia del Chaco):** SQLite, an (un) known super ant

14:00

14:15

**Matthias Feurer (University of Freiburg), Katharina Eggensperger (University of Freiburg):** Auto-Sklearn: Automated Machine Learning in Python

15:00



**Alexander Mikhalev, Dvir Dukhan:** The Pattern: Machine Learning Natural Language Processing meets VR/AR

15:15

**Nicolò Giso (Tenova):** From telemetry data to CSVs with Python, Spark and Azure Databricks

15:45

**Abraham Coiman:** Wildfire Modeling in Yosemite National Park

16:00

16:15



"CEST"	Optiver	Brian
07:45	Registration	
08:00	<b>David Bordeynik (Nvidia):</b> Moving Fast with FastAPI	<b>lil anonymous (Nandi Associates):</b> Creating the Next Generation of Billionaires-Part 3
08:30	<b>Zac Hatfield Dodds (HypoFuzz):</b> Stop Writing Tests!	<b>Griffith Rees (The Alan Turing Institute):</b> From Research Project to PyPI Release
09:05	Morning Announcements	
09:10	Keynote 3 Connecting Communities: the Helmholtz Analytics Framework and the making of Heat by <b>Claudia Comito</b>	
		
10:00	<b>Marc-Andre Lemburg (eGenix.com):</b> Thoughts on the Future of Python	<b>Bojan Miletic (Softerrific):</b> Dependency Injection: Stealing Cool stuff from the Weird Kids
10:30	<b>Yoichi Takai (CMScom Inc.):</b> Getting Started with Statically Typed Programming in Python 3.10	<b>Andreas Klostermann):</b> Heartbeats for Hackers
11:15	 Coffee break	
11:30	<b>Reuven Lerner (Lerner Consulting):</b> Generators, coroutines, and nanoservices	<b>Or Weis (Authorizon):</b> Python RPC and PubSub over Websockets
12:00	<b>Emmanuelle Delescolle (Levit SCS):</b> Writing a python web framework in 2021	Sponsor Highlights - Recruitment Session
12:45	Lunch 	



“CEST”

Ni

Parrot [Data Science]

07:45

Registration

08:00

**Shruti Mishra, Sonal Deshmukh, Gourika Sood:** Building Application using Flutter and Django

**Chin Hwee Ong (DT One):** Designing Functional Data Pipelines for Reproducibility and Maintainability

08:30

**Harsh Bardhan (Red Hat):** Build Serverless Python Applications using AWS Chalice

**Thomas Chen:** Big Imagery Data Visualization with Gradient-weighted Class Activation Maps

10:00

**Tarik Berrada (Trayport):** The Optimal Wedding (With Pyomo)

**Ondrej Urban (Trayport):** Automated Machine Learning With Keras

10:30

**Kir Chou (Google):** Learn from LL(l) to PEG parser the hard way

**Jon Nordby (Soundsensing AS):** Sound Event Detection with Machine Learning

11:15



Coffee break

11:30

**Ruud van der Ham (salabim.org):** Sweeter debugging and benchmarking with ycecream

**Prakshi Yadav (Episource LLC):** Data lake: Design for schema evolution

12:00

**Christoph Dr. Zimmermann (Redis Labs):** Adventures in Real-time Python NoSQL-style

**Oliver Cobb (Seldon Technologies):** Protecting Your Machine Learning Against Drift: An Introduction

Lunch



“CEST”

Optiver

Brian

13:00

13:15

**Daniel Moisset (Bloomberg LP):** Pattern Matching in Python

**Vinicius Gubiani Ferreira (Azion Technologies):** Python Anti-Patterns

13:45

**Meredydd Luff (Anvil):** Writing Better Documentation for Developers

**Gina Häußge (OctoPrint):** Driving 3D Printers with Python

14:15

**Anna-Lena Popkes (inovex GmbH):** Finding Magic in Python

**Scott Irwin (Bloomberg):** A Hitchhiker's Guide to functools

14:45

15:00



Coffee break


15:15

Keynote 4  
Our Universe through Sight, Sound & Touch  
by **Dr. Kimberly Arcand**



16:05

Lightning Talks 2

"CEST"	Ni	Parrot [Data Science]	Argument-Clinic [Posters]
13:00			
13:15	<p><b>Gajendra Deshpande (KLS Gogte Institute of Technology, India):</b> Build Your First Cyber Forensic Application using Python</p>	<p><b>Kautilya Katariya (NA):</b> Computational Complexity Theoretical Foundation on How Long Will Program Run</p>	<p><b>Florian Bruhin (Bruhin Software):</b> qutebrowser: A keyboard-driven, vim-like browser</p>
13:45	<p><b>Marc-Andre Lemburg (eGenix.com):</b> EuroPython 2022: Help us build the next edition!</p>	<p><b>Alyona Galyeva (LINKIT):</b> We build a ML pipeline after we deploy</p>	
14:15	<p><b>Alexys Jacob (Numberly), Romain Meson (Numberly), Souad Boutegrabet, Margaux Levisalles (Latitudes), Brieuc Le Bars:</b> Tech for Good: Build the world you want to live in</p>	<p><b>Eyal Kazin (Babylon Health):</b> A Gentle Introduction To Causal Inference</p>	
15:00	 <p>Coffee break</p>		

"CEST"	Optiver	Brian	Ni
10:45	Registration		
11:05	Morning Announcements		
11:10	<b>Anton Buyskikh (Riverlane):</b> A Python Framework for the Design of Quantum Control Stacks	<b>Marko Ristin (Zurich University of Applied Sciences (ZHAW)), Phillip Schanely, Lauren De Bruyn:</b> Automatic Testing of Python Functions Based on Contracts	<b>Riya:</b> Improved web scraping with Python tools and Bash utilities.
12:00	<b>Keynote 5</b> No, not typing. Types. by David Beazley (Dabeaz LLC)		
12:45	Lunch 		
13:15	<b>Julian Camilleri (Heycar (Volkswagen/Daimler)):</b> Building a clean, maintainable and tested code base	<b>Joost Lek (Optiver):</b> How I got my code on mars	<b>Kirill Borisov:</b> Code From Nothing: Procedural Generation of Python Source Code
13:45	<b>Mike Korneev (Best Doctor):</b> Improving code with automatic tools	<b>Roberto Polli (Italian Digital Transformation Department):</b> Designing secure APIs	<b>Miki Lombardi (Growens s.p.a):</b> A crowdsourced map for checking supermarket wait times worldwide
14:15	<b>Stefanie Stoppel (inovex GmbH):</b> The Myth of Neutrality: How AI is widening social divides	<b>Luke Leighton:</b> The Libre-SOC Project	<b>Pierre Clisson:</b> Building Brain-Computer Interfaces with Timeflux
15:00	Coffee break 		

"CEST"

Parrot [Data Science]

Argument-Clinic [Posters]

10:45

Registration

11:10

**Gaël Grosch (Unit8 SA) , Léo Tafti (Unit8):**  
Darts: Unifying time series forecasting models  
from ARIMA to Deep Learning

12:45

Lunch



13:15

**Lim H. (QuantumBlack):** Reproducible and  
Deployable Data Science with Open-Source  
Python

13:45

**Harshit Prasad (Grofers):** High Performance Data  
Processing with Python, Kafka and Elasticsearch

14:15

**Neeraj Pandey (Ashoka University):** Genetic  
Algorithms: Better optimisation with Darwinian  
Principles

15:00



Coffee break

**Shagun Sodhani (Facebook):** Multitask  
Reinforcement Learning with Python

"CEST"	Optiver	Brian	Ni
15:15	<b>Eli Holderness (Anvil):</b> Pointers? In my Python? It's more likely than you think	<b>Andy Fundinger (Bloomberg LP):</b> The spec you never knew you needed	<b>Jessica Temporal (Auth0):</b> (Reserved for Auth0 Sponsored Talk)
15:45	<b>Vinayak Mehta (June):</b> A Tale Of Python C Extensions And Cross-Platform Wheels	<b>Yashasvi Misra (Samsung PRISM):</b> Personal growth and the Python community	<b>Sam Thursfield (Codethink Ltd):</b> Simple, open, music recommendations
16:15	<b>Cristián Maureira-Fredes (The Qt company):</b> Learn CPython by breaking it	<b>Matteo Bertucci:</b> Learn Python automation by recreating Git Commit from scratch	<b>Murray Thom (D-Wave):</b> Programming for Quantum 101
16:55	Lightning Talks 3		
17:45	<b>Keynote 6</b> Python the Bad Parts by <b>Joannah Nanjeyke</b> 		
18:30	Dinner 		
19:00	<b>Itamar Turner-Traving:</b> Measuring memory: Python memory profilers and when to use them	<b>Benjy Weinberger (Toolchain):</b> Python monorepos: what, why and how	<b>Rabeaa Emad:</b> Host your FastAPI based websites in Azure for free with Azure Web Apps and Azure
19:30	<b>Claudia Regio (Microsoft), Lomis Chen (Microsoft):</b> Python Data Science with VS Code and Azure	<b>Abby Carey (Google):</b> (Reserved for Google Sponsored Talk)	<b>Jeremiah Paige (ActiveState):</b> Formalizing a Language
20:05	Closing Session		

"CEST"

Parrot [Data Science]

Argument-Clinic [Posters]

15:00

15:15

**Alon Nir (Spotify):** Sliding into Causal Inference, with Python!

**Shagun Sodhani (Facebook):** Multitask Reinforcement Learning with Python

15:45

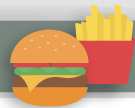
**Steven Kolawole:** Streamlit: The Fastest Way to build Data Apps

16:15

**Alejandro Saucedo (The Institute for Ethical AI & Machine Learning):** Production ML Monitoring: Outliers, Drift, Explainers & Statistical Performance

18:30

Dinner



19:00

**Utkarsh Mishra (Quale Infotech):** Python and Flutter application for Colouring and Enhancing Old Photos

19:30

**Augusto Stoffel (dida Machine Learning):** Graph neural networks for information extraction with PyTorch

SATURDAY, 31 July 2021

European Python Programming Conference | Program booklet

"CEST"

08:45

Registration

09:00

Sprint Opening Session

09:30

Sprint Morning Session 1

11:00



11:15

Sprint Morning Session 2

12:45



13:15

Sprint Afternoon Session 1

15:00



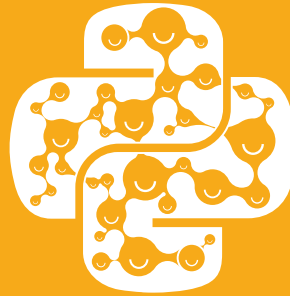
15:15

Sprint Afternoon Session 2

17:05

Sprint End of Day Presentations

18:45



# Sprints



All times are shown in CEST (UTC+2)





“CEST”

Registration

08:45

Sprint Opening Session

09:00

Sprint Morning Session 1

09:30

Sprint Morning Session 2

11:00

11:15

Sprint Afternoon Session 1

13:15

Sprint Afternoon Session 2

15:00

15:15

Sprint End of Day Presentations

17:05


18:45

All times are shown in CEST (UTC+2)



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# Program

# Keynote Speakers



Wednesday, July 28, 09:10 CEST, in Room Optiver

## Pablo Galindo Salgado



Nobody expects the Spanish inquisition

In this talk I will go into some interesting stories of how (C)Python is made. We will go through a journey that will show you how Python is developed, who works on it, interesting battles against the most obscure of bugs and lots of unexpected situations and things to learn and to reflect on.

### About Pablo Galindo Salgado

Pablo Galindo Salgado works in the Python Infrastructure team at the Software Infrastructure department at Bloomberg L.P. He is a CPython core developer and a Theoretical Physicist specialized in general relativity and black hole physics. He is currently serving on the Python Steering Council and he is the release manager for Python 3.10 and 3.11. He has also a cat but he does not code.



Wednesday, July 28, 17:15 CEST, in Room Optiver

## Abigail Dogbe



Python in a world of Pan-Africanism

The use of Python in Africa is widely spread daily. In this talk, I will take you on a journey of what Python means to us in a Pan-African setting, lessons learned from organizing PyCon Africa, the people behind it, challenges we are facing and reflections on what works in our ecosystem.

### About Abigail Dogbe

Abigail is an IT professional from Accra in Ghana who loves programming and the power that it can put in people's hands - especially those people who have less power of their own to begin with. She wants to help do more of that, and is confident that the Python community can help achieve it.

Abigail is the lead of PyLadies in Ghana, a recipient of a PSF Community Service Award

and she has served on the organising teams of both PyCon Ghana and PyCon Africa. She believes that women, technology and education need to come together as strongly as possible, and will do whatever she can to help create a future in which they do.



Thursday, July 29, 09:10 CEST, in Room Optiver

## Claudia Comito



Connecting Communities: the Helmholtz Analytics Framework and the making of Heat

HPC, Scientific Big Data, co-design, Python: beneath the buzzwords,

bringing together academics from the most disparate research fields to work on a common product is no easy feat. What worked, what didn't, and lessons learned from the Helmholtz Analytics Framework experience.

### About Claudia Comito

Claudia Comito is based at the Jülich Supercomputing Center since 2018. One of the Heat core developers, she leverages her 15+ years experience in astrophysics to support scientists in porting their applications to high-performance, parallel Python.



Thursday, July 29, 15:15 CEST, in Room Optiver

## Dr. Kimberly Arcand



Our Universe through Sight, Sound & Touch

Information of our Universe doesn't have to be just a two-dimensional snap shot. We can transform these data to be able to listen, feel, or (virtually) move through cosmic objects. Listen to the debris from an exploded star, walk through the core of our Milky Way in virtual reality, feel vibrations of a stellar nursery, and experience our universe anew.

### About Dr. Kimberly Arcand

Dr. Kimberly Arcand is a leading expert in astronomy visualization and has been a pioneer in 3D imaging, printing, and extended reality applications with astrophysics data. Kim began her career in molecular biology and public health before moving to NASA's Chandra X-ray Observatory in 1998. She is an expert in studying the perception and comprehension of high-energy data visualization across the novice-expert spectrum, and is principal researcher in the Aesthetics and Astronomy image response research project with international participation. Her

current projects include sonification of spatial data, screen-based holograms and other intersections of emerging technology and astrophysics. She has co-written seven non-fiction science books including her first two science-related children's books that came out last year.



Friday, July 30, 17:45 CEST, in Room Optiver

## Joannah Nanjekiye



Python the Bad Parts



Friday, July 30, 12:00 CEST, in Room Optiver

## David Beazley



No, not typing.  
Types.

While biking through the forest preserve on a dark December morning, I found myself suddenly staring face-to-face with Bambi. Picking myself off the ground with a broken wrist and an assortment of broken fingers, I embarked on an unexpected journey of discovery. Then the pandemic hit. In this talk, I provide a trip report.

### About David Beazley

David Beazley is the author of the Python Essential Reference, the Python Cookbook, and the upcoming book Python Distilled. He has been programming Python for 25 years.



<https://www.dabeaz.com>



@Captain\_Joannah

GitHub: [nanjekiyejoannah](https://github.com/nanjekiyejoannah)



<http://csunb.ca/~jnanjeki>

Python is great but it definitely has faults too. In this talk, I will talk about some of the Python challenges as a language, and the current efforts in the community to alleviate them. I will also talk about how I plan to engage scientists and academics during my time on the PSF board, to highlight some of the research we are working on as a community.

### About Joannah Nanjekiye

Joannah Nanjekiye has a background as a Software and Aeronautical Engineer. Currently, a Python core developer and PSF director doing research on garbage collection in Python with the IBM Center for Advanced studies - Atlantic, at the University of New Brunswick in Canada, but originally from Uganda, East Africa. She is also the author of Python 2 and 3 compatibility, a book published by Apress.

## Talks

EuroPython 2021 gives you access to more than 130 sessions throughout the 7 days of the conference. We have included the schedule in this booklet, but changes after print are still possible.

Please see our website or the conference app for the full up to date schedule, including session descriptions.

## Data Science Track

In recent years, data science has become a very important part of Python's eco system. EuroPython has been dedicated to showcasing Python's use in data science for many years. This year, we have reserved a complete track on all three conference days to this topic.

### EuroPython meets Data Science

We are happy to announce a complete data science track as part of the main EuroPython conference this year, with 37 full-length talks, 2 keynotes, 9 workshops/training sessions, 2 interactive sessions and 1 poster. Most of these will be held in the Parrot room.

Many of the talks rely on projects which are funded by [NumFocus](#). Please find more

information and the mission of NumFocus supporting Open Source Software below.

## Poster sessions

Posters are a graphical way to describe a project or a technology, printed in large formats; posters are exhibited online at the conference, can be read at any time by participants, and can be discussed face to face with their authors during the poster sessions.

[Multitask Reinforcement Learning with Python](#) by [Shagun Sodhani](#)

[qutebrowser: A keyboard-driven, vim-like browser](#) by [Florian Bruhin](#)

## EuroPython sessions

The EuroPython sessions are intended for anyone interested in helping with the EuroPython organization in the coming years.

### EPS General Assembly

This is where the EuroPython Society (EPS) board gives its reports, resolutions are passed and the EPS members can vote in a new EPS board.





Please note: The General Assembly will be scheduled a few weeks after EuroPython 2021 and also held online. We will announce the General Assembly on the EPS blog.

## EuroPython 2022: Help us build the next edition!



Thursday, 13:45 CEST, Room Ni

We need help with organizing and running EuroPython 2021.

In this session, we will explain how the EuroPython workgroup model works and where you could help.



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# We're hiring

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- thorough knowledge in a front-end or back-end stack
- join multiple product teams
- use exciting technologies (Python, Vue.js, Kafka, Kubernetes, ScyllaDB, GraphQL)
- build great platforms that leverage data
- work with Infrastructure Engineers and Data Engineers

## Data Engineer / DataOps

- join teams dedicated to Big Data and Event-Driven data pipelines
- design, create, operate and maintain large data storage architectures using Hadoop, Airflow, ScyllaDB, Kafka
- interact with other teams to proactively solves scaling problems (Data Scientists & Software Engineers...)

## Data Scientist

- work on Applied Mathematics and Machine Learning projects
- optimize our Digital Marketing campaigns
- create and develop optimization algorithms
- realize complex Big Data studies
- leverage the rich data we collect such as behavioral, demographic, purchasing data

### Software Engineer



[nubr.ly/SE](https://nubr.ly/SE)

### DevOps



[nubr.ly/DOE](https://nubr.ly/DOE)

### Data Engineer



[nubr.ly/DE](https://nubr.ly/DE)

### DataOps



[nubr.ly/DIE](https://nubr.ly/DIE)

### Data Scientist



[nubr.ly/DS](https://nubr.ly/DS)



A logo consisting of a white cross shape with a network of nodes and lines inside, set against an orange background.

# Sprints



Program

Most open source software development happens on the web and developers commonly only communicate online when working on projects. This usually works out fine, but the lack of in-person meetings can sometimes be a limiting factor in making good progress.

For this reason, a form of impromptu coding meetups called "sprints" or "hackathons" (outside the Python community, the term "hackathon" is more common) were initiated, where developers interested in a project can get together in person for a short period of time to make quick progress. Since conferences provide the perfect place to meet, sprints are made into part of the conference program. Just like last year, COVID-19 restrictions forced

us to move the sprints online. They will take place on Saturday and Sunday.

EuroPython has had sprints ever since it started in 2002. This year we will again have a sprint weekend, where developers can join to work on interesting things. It is also possible for people interested in a project to join in for the first time at a sprint. The setup and management of the sprints are solely up to the teams running the sprints.

We will have a sprint introduction session on Saturday morning at 09:00 CEST. If you want to join a sprint team, attending this session is a good idea.



## Social Events

We had a lot of fun at EuroPython 2020 social events and would like to organise something similar this year as well.

Please stay tuned for announcements during the conference.

## BUILD DATA PRODUCTS



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Get started at <https://aka.ms/euopython>







## Azure for Python Developers

Azure offers extensive services for Python developers including app hosting, storage, open-source databases like MySQL and PostgreSQL, and data science, machine learning, and AI. The Azure libraries (SDK) for Python helps developers be highly productive when using these services.

Get started at <https://aka.ms/azureeuropython>



## Code of Conduct

EuroPython is a diverse community who maintains a reputation as a friendly, welcoming, inspiring and dynamic group. We'd like to keep it that way, which is why we ask all attendees, organizers and sponsors to follow this code of conduct (CoC).

If you have questions regarding this CoC, please see our CoC FAQ below or contact the EuroPython CoC WG. Your questions will only be seen by the members of the CoC workgroup and treated confidentially.

### Be nice to each other

We trust that attendees will treat each other in a way that reflects the widely held view that diversity and friendliness are strengths of our community to be celebrated and fostered.

Furthermore, we believe attendees have a right to:

- be treated with courtesy, dignity and respect;
- be free from any form of discrimination, victimization, harassment or bullying;
- enjoy an environment free from unwelcome behavior, inappropriate language and unsuitable imagery.

### Be professional and don't spam

We consider EuroPython a great setting to showcase the work of the community and would like to encourage networking and business related discussions, as well as keep

the conference presentations meaningful and interesting for everyone.

We therefore:

- only allow company marketing or recruiting related activities at the conference in accordance with our sponsor agreements;
- request presentations – outside the official recruiting sessions – to focus on Python related topics, not on recruitment.

The EuroPython Sponsor WG will be happy to answer any questions related to marketing or recruiting activities.

### Solving problems

If problems covered by this code of conduct arise, please contact one of EuroPython CoC contacts listed below or any other EuroPython organizer directly and in private. Any complaint will remain confidential, be taken seriously, investigated, and dealt with appropriately.

The EuroPython organizers reserve the right to carry out any of the following actions relating to a complaint:

- The person concerned may be told to stop/modify his/her behavior appropriately and a warning will be issued.
- The person concerned may be warned that enforcement action may be taken if the behavior continues.
- The person concerned may be asked to leave the venue immediately and/or may be prohibited from continuing to attend EuroPython (without refund).
- The incident may be reported to the local authorities.

# V VONAGE

Vonage is a cloud communications platform that allows developers to integrate voice, video and messaging into their applications using their communication APIs. So whether you want to build video calls into your app, create a Facebook bot, or build applications on top of programmable phone numbers, Vonage has got you covered.

We look forward to chatting  
with you at our booth!



[developer.vonage.com](http://developer.vonage.com) |  [@vonagedev](https://twitter.com/vonagedev)

## Contacts:

@ [coc@europython.eu](mailto:coc@europython.eu) – Emails to this address will be received by the EuroPython CoC Workgroup, which is in charge of CoC conflict management..

You can also reach the following members via email, phone or contact them directly:

**Silvia Uberti**  
@ [silviauberti@gmail.com](mailto:silviauberti@gmail.com)  
Twitter: @ladybiss, Telegram: @ladybiss

**Anders Hammarquist**  
@ [sm6xmm@gmail.com](mailto:sm6xmm@gmail.com)  
Telegram: @SM6XMM

**Marc-Andre Lemburg**  
@ [mal@europython.eu](mailto:mal@europython.eu)  
Telegram: @malemburg

This document is based on the PyCon UK 2015 Code of Conduct and released under a creative commons license.

## Code of Conduct FAQ

This FAQ is meant to clarify a few questions that may arise from reading our above Code of Conduct for the EuroPython conference.

### Why did you add the "don't spam" section to the CoC?

At previous EuroPython conferences we had a few issues with non-sponsor companies trying to sidestep our sponsorship packages by e.g. massively distributing flyers on conference

tables, directly approaching attendees with calls to attend company presentations, or using lightning talks as free recruiting session.

It should be understood by attending companies, that marketing and promotional activities are only permitted in the context of our paid sponsor packages. Not following these guidelines is disrespectful of our attendees and paying sponsors.

To make this clear to everyone, we decided to add a new section to the CoC, starting with EuroPython 2016.

### May I distribute flyers/stickers/etc at the in-person conference?

We will have a special table/area designated for distribution of flyers, stickers and other informational material, which can be used by all attendees (including employees of companies sponsoring or not sponsoring EuroPython) to place marketing material. Unsolicited distribution of marketing material in other areas, e.g. on conference tables, in conference rooms, etc. is not permitted, unless authorized by the EuroPython Sponsors WG.

### May I send private messages to attendees on the Discord chat system?

If you have their permission, that's absolutely no problem.

We do not want sponsors to contact attendees in a cold-call style to get their attention. It is better to first get their attention on one of the public channels and then follow up with them using PMs for more details conversations. As an attendee you may contact other

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attendees via private messages, if they have turned on permissions to allow such messages. If you do, please be aware that such direct contact may not be welcome and also consider that our Code of Conduct applies to such communications as well.

**Does the restriction of marketing/recruiting activities also apply to private discussions?**

Absolutely not :-) Much to the contrary, we want to encourage such communication at the conference, including discussions related to business acquisition or recruiting offers.

The restriction does apply to unsolicited marketing or recruiting activities by non-sponsor companies, since this would sidestep our sponsoring activities and lower the value of our sponsoring packages. Without this restriction, we'd end up with fewer sponsors and a higher priced conference, which is not in our interest and also not in the interest of our many attendees.

**I have a question which is not answered in this FAQ**

Please contact the EuroPython CoC WG with any other questions you may have. Your questions will only be seen by the members of the CoC workgroup and treated confidentially.

## Contacts

### EuroPython Helpdesk

If you have questions regarding EuroPython, your talk submissions, your tickets, etc. please contact the EuroPython Helpdesk at:

 [helpdesk@europython.eu](mailto:helpdesk@europython.eu)

Please see the [code of conduct page](#) for CoC contact information.

For problems with the website we have an expert option available too: please report issues using the [github tracker for the site](#).

### EuroPython Sponsor Contact

If you are interested in [sponsoring EuroPython](#), please contact:

 [sponsoring@europython.eu](mailto:sponsoring@europython.eu)

The sponsoring team will then get in touch with you to discuss the possibilities and details.

### EuroPython Society

The EuroPython Society board can be reached via one of the following addresses:

 [board@europython.eu](mailto:board@europython.eu)  
[board@europython-society.org](mailto:board@europython-society.org)  
 [@europythons](https://twitter.com/europythons)



Adimian is a software company operating from Brussels, Belgium, specialized in both Python and scientific computing.

Our clients are mix of both small and large scale companies, looking for our expertise for building new projects or growing existing ones. For over a decade, we have been helping them overcome their challenges.

We think that early shipping, short iterations and good communication are the keys to tackle the hardest problems. We know rushing to code is not always the best option and want to understand our customer's organizations, discover the issues faced by the users and be part of the reflection to find the best ways to reach their goals.

We maintain a healthy balance between on-site and remote work. Hours are very flexible, because we don't feel the need to track every minute, as long as the job is well done. Being a remote focused company means we often live in our chatroom, being Slack. You log-in, salute your friendly co-workers, and start working, either on internal projects, either for one of our customers.

We don't do hype-driven development, rather we encouraged experimenting with new tools and technologies, but you'll have to convince your peers to use any "not-the-usual-stack" technology in production. This creates room for interesting, highly technical discussions once in a while.

We don't do meetings and we keep phone or video chatting to a minimum, unless it's required by both parties. This means you can be asynchronous in your replies, and take your time to answer. But if you are stuck or worried about something, you can always call for help, we've all been there.

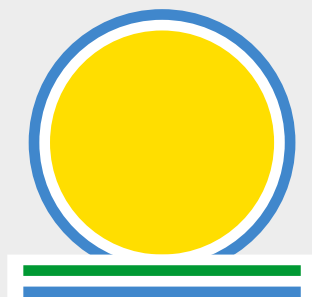
Sometimes you achieve greatness and you can brag about it in our #feelgood channel. Sometimes you fail miserably, and you can still get back to the #feelgood channel to be reminded that you're not screwing up all the time. We're deeply human people, and acknowledge that everyone makes mistakes. We don't like pointing fingers. Instead, we stick with you, and cheer you up.

If, unfortunately, you or a loved one is unwell, it's perfectly ok to drop what you're doing to go fix the situation. We might respectfully bug you on rare occasions while you're away, but only if the situation requires it. We take this seriously. Same goes for when you're on holidays.

Being surrounded by curious and helpful colleagues you'll want to get better at your daily job, engage into a virtuous circle of improving your craft, while being given the ability to do so. We don't care about your education. Or your age. Or your gender. What you look like is irrelevant. If you are really good at what you do, then you have our respect. On the other side, if you are all talk and think you can get away with it, you will be disappointed, as we have very little tolerance for bullshit.

As often as possible (so about twice a month), we like to meet up in person with the whole group, to eat unhealthy meals and have geeky discussions about video games, politics and dank memes. Sometimes all in the same sentence.

Working at Adimian, it's trying every day to push everyone up, and have a good laugh while doing it.



# Riverbank


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# Imprint

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-  [@europythons](https://twitter.com/europythons)

Please visit the EuroPython Society website  
for more details:

<http://www.europython-society.org/>

## Photo references:

[www.freepikes](http://www.freepikes)







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2021





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