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# 27th PyData *Bristol*



— 27th March 2024 —

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James Yarrow, Gregory Daly  
David Greenwood, Valerio Maggio

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**NUMFOCUS**  
OPEN CODE = BETTER SCIENCE

**AMDARIS**  
An Insight company

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# NumFOCUS: Open Code = Better Science

- Non-profit supporting key open source scientific computing projects
- Sponsored projects include Jupyter, Pandas, NumPy, Matplotlib
- PyData, community educational and engagement programme

<https://numfocus.org/>





**PyData**

**NUMFOCUS**  
OPEN CODE = BETTER SCIENCE

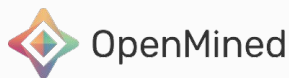
Members  
**211,251**

Groups  
**219**

Countries  
**76**

PyData Bristol: Established 2018, 1,202+ members!

# The organisers



**James**  
@Yarrow

**Lenka**  
@LenkaHas

**Alistair**  
@alistairlr112

**Valerio**  
@leriomaggio

**Neil**  
@n\_andrassy

**Greg**  
@greg\_daly

**Alon**  
@AlonSamuel1

# Our Sponsors :)






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Amdaris welcomes you to the Bristol office!

Unleash limitless possibilities with Amdaris, the premier provider of Extended Delivery Teams!

# PyData Bristol - Event tonight

6:30	 Intro to PyData Bristol	PyData Organisers
6:40	Silent Intrusion: How LLM Infiltrating Enterprises	Manish Sharma
7:10	Break (pizza and drinks)	
7:40	Empowering Society with Data Science	David Greenwood
8:10	 'Your code stinks' - avoiding fighting words by ruff linting	Adam Sardar
8:20	Community Announcements	
8:30	 Networking and drinks	Nearby pub: Left Handed Giant

# Speaking @ PyData Bristol

<https://bit.ly/pydata-bristol-speaker>





<https://github.com/pydatabristol>

📖 README.md

## PyData Bristol Meetups

Links:

- [PyData Bristol on Meetup.com](#)
- [@PyDataBristol on Twitter](#)
- [PyData Bristol YouTube Channel](#)

## Past meetups

- [10th PyData Bristol meetup Sep 2019](#)
- [11th PyData Bristol meetup Oct 2019](#)
- [12th PyData Bristol meetup Nov 2019](#)
- [13th PyData Bristol meetup Dec 2019](#)
- [14th PyData Bristol meetup Jan 2020](#)
- [15th PyData Bristol meetup Feb 2020](#)
- [Joint PyDataUK and 16th PyData Bristol meetup May 2020](#)
- [17th PyData Bristol meetup Oct 2022](#)
- [22nd PyData Bristol meetup Apr 2023](#)

## PyData Bristol Workshops

Links:

- [PyData Bristol on Meetup.com](#)
- [@PyDataBristol on Twitter](#)
- [PyData Bristol YouTube Channel](#)

## Workshops

You can find slides and code for our workshops below:

- [Intro to Deep Learning with Keras \(20th Sep 2018\)](#)
- [Intro to Recurrent Neural Networks \(13th Nov 2018\)](#)
- [First Steps with Python \(28th Oct 2019\)](#)
- [Introduction to Python \(23rd Jan 2020\)](#)
- [First Steps with pandas \(27th Feb 2020\)](#)

Schedules, slides and recordings of previous events can be found in

# What to speak about @ PyData Bristol?



# Upcoming local events

PyData Bristol *Meetup* May (TBD)

Tech Ethics *Meetup* 18th of April (Immersive labs)

Data Bristol *Meetup* 25th of April (Armada house)

Bristol MLOps *Meetup* April?

PyData Southampton *Meetup* 16th of April (Carnival House)

PyData London *Meetup* 2nd of April ()

<https://twitter.com/pydatabristol>

# Conference Updates

- **PyCon DE and PyData Berlin 2024** Berlin, April 22-24
  - <https://2024.pycon.de/> (Programme online)
  - In-person Attendance: *waiting list*
  - Remote Attendance: tickets available
- **PyCon US** Pittsburgh, Pennsylvania, May 17-23
  - <https://us.pycon.org/2024/> (Programme announced)
- **PyCon Italy 2024** Florence, Italy, May 22-25
  - <https://2024.pycon.it> (Programme & Keynotes announced)
  - Beginners Day Workshop + Humble Data (Pre-conf free events)

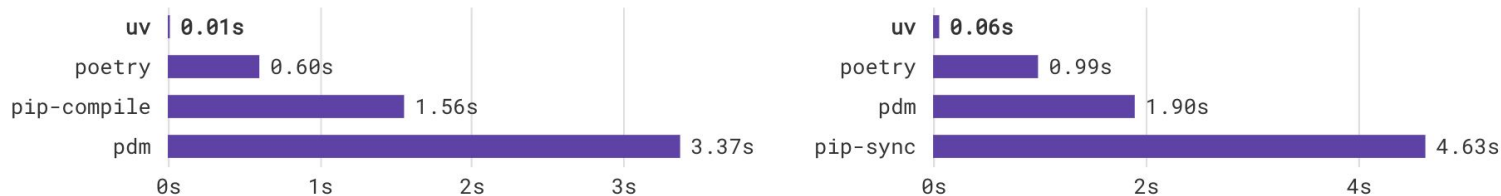
# Conference Updates

- CardiffNLP workshop Cardiff, UK, 1-2 July
  - <https://www.cardiffnlpworkshop.org/>
  - Registration period: TBA (From late April 2024)
- EuroPython 2024 Prague, July 8-14
  - <https://ep2024.europython.eu/>
  - Community Voting open - programme to be announced soon

# Package of the Month: uv

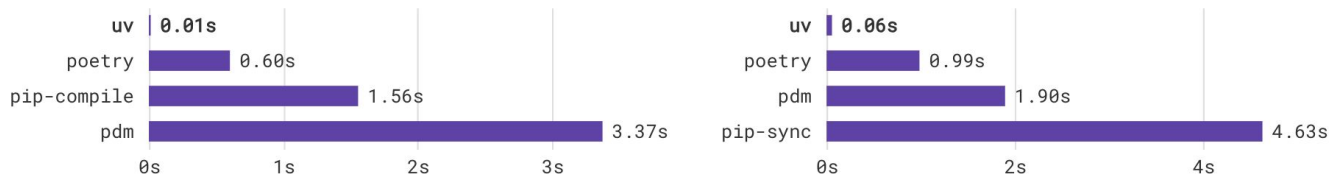
An extremely fast Python package installer and resolver, written in Rust.  
Designed as a drop-in replacement for common pip and pip-tools workflows.

<https://github.com/astral-sh/uv>



Resolving (left) and installing (right) the [Trio](#) dependencies with a [warm](#) cache, to simulate recreating a virtual environment or adding a dependency to an existing project ([source](#)).

Photos from  
<https://astral.sh/blog/uv>



Resolving (left) and installing (right) the [Trio](#) dependencies with a [warm](#) cache, to simulate recreating a virtual environment or adding a dependency to an existing project ([source](#)).

# AI or Python News

- [Open Release of Grok-1](#)
- [Devin: The First AI Software Engineer](#)
- [The launch of the OpenAI GPT Store](#)
- [OpenAI Sora - text to video](#)
- [Haystack \(LLM Framework\) version 2 release](#)

# GPT4 Nonsense

At a Python data meetup, imagine attendees engaging in a quirky activity: each person holds a rubber duck, symbolizing a unique approach to debugging, under the whimsical glow of binary code disco lights. The highlight is a keynote that transforms complex data algorithms into an interpretive dance, captivating everyone with its creativity. This unconventional gathering celebrates Python and data analysis in a memorably eccentric way, fostering a sense of community through shared laughter and unconventional learning.



# Gemma 2B - A goat story

```
prompt_template = """
```

```
Generate an absolutely random and non-sensical story with morally grey characters BUT it must contain 2 goats
```

```
Help me understand that story by describing it as a detailed knowledge graph
```

```
Return the output as JSON only.
```

```
"""
```

```
pipe = Pipeline()
```

```
pipe.add_component("prompt_builder", PromptBuilder(template=prompt_template))
```

```
pipe.add_component("generator", OllamaGenerator(model="gemma:2b", url="http://localhost:11434/api/generate"))
```

```
pipe.connect("prompt_builder", "generator")
```

# Gemma 2B - A goat story

```
context, json_ = cleaned_response.split('**Output:**')
```

```
context
```

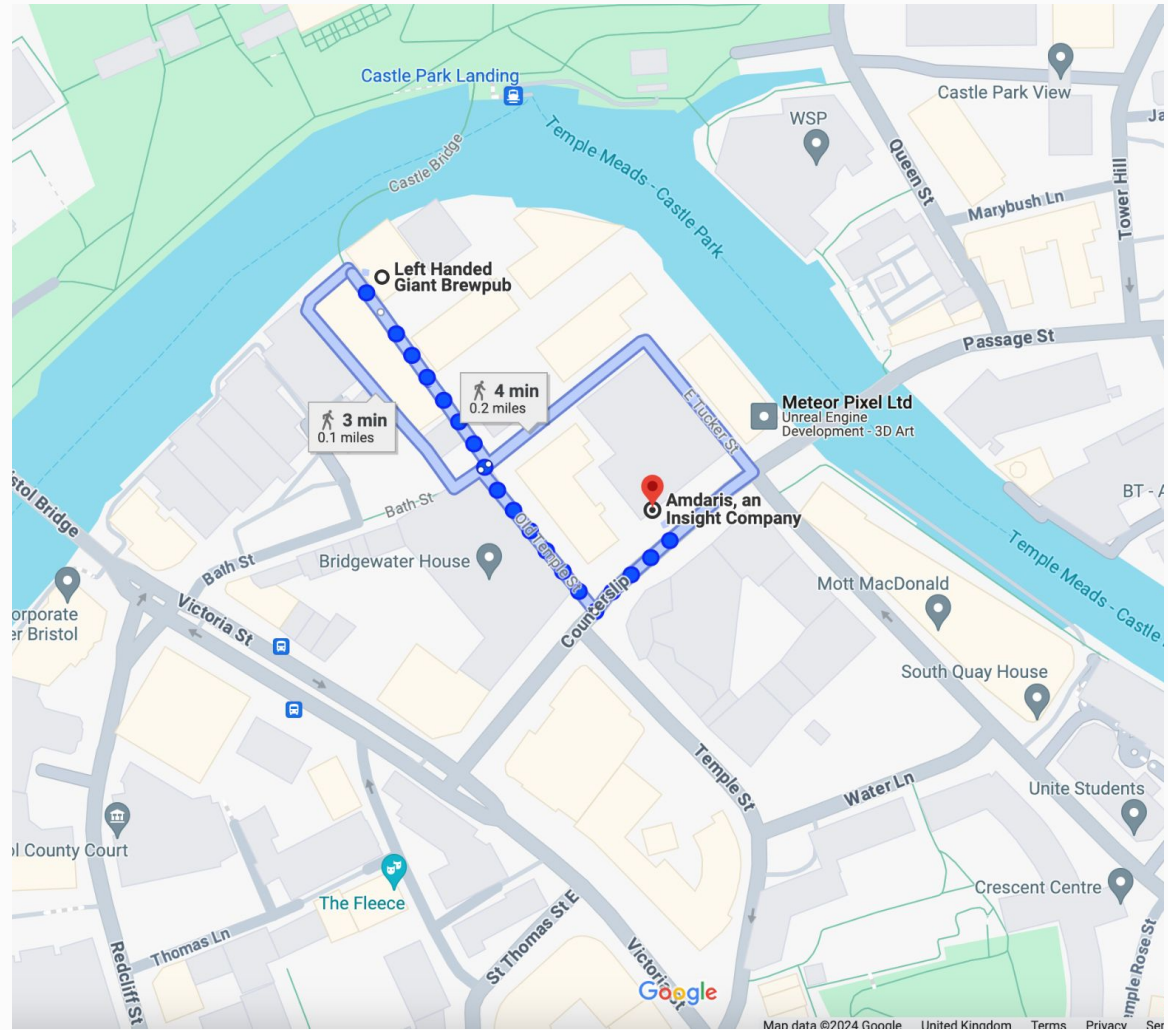
```
'## The Goats of Doom**Characters:** Goat 1: Glutton, impulsive, opportunistic* Goat 2: Wise, thoughtful, cautious**Story:**The sun beat down on the arid plains, baking the dust and drying the leaves. Two goats, Glutton and Wise, watched the spectacle with an indifferent gaze.Glutton, ever the opportunist, noticed the weakness of the fence surrounding the watering hole. He bleated loudly, drawing the attention of the other goat."Wise, you fool! There\'s a feast waiting for the taking."Wise, always cautious, retorted, "Taking is not a virtue, Glutton. We must find a more sustainable source of nourishment."As Glutton began to scavenge, Wise observed him with a knowing smirk. He knew that Glutton\'s hunger might be overpowering his sense of fairness.Meanwhile, a farmer, desperate for water for his parched crops, saw the opportunity he\'d been waiting for. He approached the goats, offering a generous gift of freshly-baked bread.Glutton, hungry and opportunistic, snatched the bread with gusto. He then feigned a need for more, his eyes wide with greed.Wise watched the exchange with a pained look. He knew that Glutton\'s greed would eventually lead him to betray the farmer.In the ensuing chaos, the goats fought amongst themselves, their hunger overriding their sense of justice. Glutton, blinded by the promise of food, chased after the farmer, leaving Wise to clean up the mess.**Knowledge Graph:** **Character Traits:** * Goat 1: Gluttony, impulsiveness, opportunism * Goat 2: Wisdom, thoughtfulness, caution* **Story:** * Glutton and Wise witness a farmer\'s desperate need for water. * Glutton takes the farmer\'s bread, causing conflict. * Wise tries to intervene, but his efforts are unsuccessful. * The goats fight amongst themselves, with Glutton\'s greed ultimately leading to their betrayal.* **Moral Grey Characters:** * Glutton: Represents greed and the willingness to prioritize immediate gratification over long-term sustainability. * Wise: Represents wisdom and the importance of prioritizing justice and fairness over personal gain.'
```

# Gemma 2B - A goat story

```
json.loads(json_)
```

```
{'characters': {'Goat 1': {'traits': ['Gluttony',  
    'Impulsiveness',  
    'Opportunism']}},  
    'Goat 2': {'traits': ['Wisdom', 'Thoughtfulness', 'Caution']}},  
    'story': "The sun beat down on the arid plains, baking the dust and drying the leaves. Two goats, Glutton and Wise, watched the spectacle with an indifferent gaze. Glutton, ever the opportunist, noticed the weakness of the fence surrounding the watering hole. He bleated loudly, drawing the attention of the other goat. 'Wise, you fool! There's a feast waiting for the taking.', he declared, his voice echoing through the arid landscape.",  
    'moral_grey_characters': [{'character': 'Glutton',  
        'traits': ['Gluttony', 'Impulsiveness', 'Opportunism']},  
        {'character': 'Wise', 'traits': ['Wisdom', 'Thoughtfulness', 'Caution']}]}
```

# Networking in the pub: Left Handed Giant brewpub



# GPT4 Nonsense - speakers praise

We're eagerly anticipating the talks from Manish, David, and Adam at our upcoming Python data meetup. Manish, with his profound knowledge of data structures, promises to enlighten us with insights that demystify complex concepts. David, a wizard in data visualization, is set to transform how we perceive and interpret data through his captivating presentation. And Adam, with his practical approach to machine learning, will undoubtedly equip us with valuable tools and understanding to apply in our projects. Their expertise and passion for sharing knowledge are sure to make this event not only educational but truly inspiring. We can't wait to see the impact of their talks on our community!