

# **AN INTRODUCTION TO OPEN SOURCE LARGE LANGUAGE MODELS**

Astrophysics developer group

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follow along here: <https://github.com/RhysAlfShaw/intro-to-open-llms>

# WINS!

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# ISSUES?

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- Large Language Models are a type of deep learning model that generates a prediction of that next word in a sequence of words.
- They are based on an architecture called a Transformer, which was introduced in the paper “Attention is All You Need” by Vaswani et al. in 2017.
- The key part is the Attention mechanism, which allows the model to focus on different parts of the input sequence when making predictions.



Figure 1: A typical Transformer architecture.



Figure 2: A typical Transformer architecture.

- This is a simple slide with no title.
- **Bold and coloured** text by using `#stress(text)`.
- Sample link: [typst.app](https://typst.app).
  - Link styling using `link-style: "color", "underline", "both"`
- Font selection using `font: "Fira Sans"`.

This text has been written using `#framed(text)`. The background color of the box is customisable.

### Frame with title

This text has been written using `#framed(title:"Frame with title")[text]`.

This is an auto-resized *focus*  
*slide.*



- This is a #blank-slide.
- Available **themes**<sup>2</sup>:

bluey, reddy, greeny, yelly, purply, dusky, darky.

- Or just use **your own theme color**:
  - theme: `rgb("30500B")`

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<sup>2</sup>Use them as **color** functions! e.g., `#reddy("your text")`

- Outline slides with outlined: true.

This is a #grayed text. Useful for equations.

$$P_t = \alpha - \frac{1}{\sqrt{x} + f(y)}$$

Columns can be  
included using  
`#cols[...] [...]`

And this  
is

an example.

- Custom spacing: `#cols(columns: (2fr, 1fr, 2fr), gutter: 2em)[...]`
- Add a **bibliography slide**...
  1. `#let bib = bibliography("you_bibliography_file.bib")`
  2. `#bibliography-slide(bib)`

Any Other Buisness

made with typst