

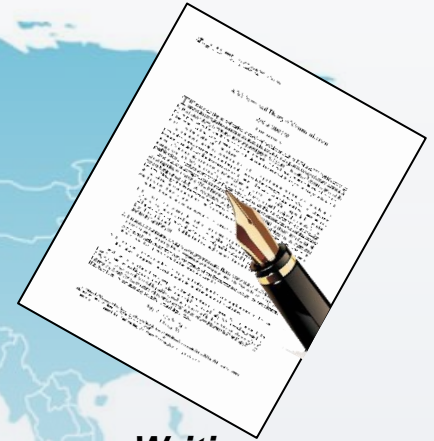
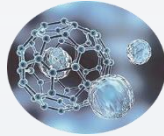
# English Practice



西安交通大学  
XI'AN JIAOTONG UNIVERSITY



conference

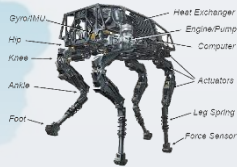


Writing

## How to speak English professionally?



Presentation



Networking

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# Title

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# Write a Title

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## ❑ The Importance of Titles

The title of your manuscript is usually the **first impression** readers (and reviewers) have to your work. Therefore, you must select a title that **draws attention**, accurately describes the contents of your manuscript, and makes people want to read further.

- ❑ Identify the **main issue** of your paper
  - ❑ Be **short, accurate, and unambiguous**
  - ❑ Begin with the **subject** of the study
  - ❑ **Attract** readers
  - ❑ Do **not** contain **abbreviations**
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# Write a Title

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- ❑ **Attractive titles** are always **concise** and **to the point**.
  - ❑ **Rambling titles** are usually **convoluted** and will not appeal to your external reviewers or improve your readership.
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# Write a Title - Example 1

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## 1<sup>st</sup> Title

*The effect of value quantization on the accuracy of convolutional neural networks and other atopic deep neural networks in computer vision: evidence from a comprehensive study in NASA, United States*

- **Comprehensive** and **descriptive**
- **Too many** prepositions and qualifiers.

## 2<sup>nd</sup> Title

*Value quantization and the influence on computer vision DNN model accuracy*

- **Delete words** that are unimportant or unnecessary.
- **Begins with** the main subject
- **Short** with only a few words.

# Write a Title - Example 2

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- ❑ *Does Quantization-Aware Training with Adaptive Quantization Scalers Inhibit the Degradation of Object Detection Accuracy of Autonomous Vehicles in Rural Areas?*
  - ❑ **This title has too many unnecessary words.**
  - ❑ *Quantization-Aware Training for Object Detection*  
**This title doesn't give enough information about what makes the manuscript interesting.**
  - ❑ *Quantization-Aware Training for Object Detection in Rural Areas*  
**This is an effective title. It is short, easy to understand, and conveys the important aspects of the research.**
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# Different ways of writing titles

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- ❑ Titles that give the name of the **methodology** and what **challenges** it addresses:
  - ❑ Examples:
    1. Deep Residual Learning for Image Recognition
    2. GEO-Bench: Toward Foundation Models for Earth Monitoring
    3. FedGame: A Game-Theoretic Defense against Backdoor Attacks in Federated Learning
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# Different ways of writing titles

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- ❑ Titles that pose a **question**:
  - ❑ Examples:
    1. How Does Adaptive Optimization Impact Local Neural Network Geometry?
    2. Where Did I Come From? Origin Attribution of AI-Generated Images
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# Different ways of writing titles

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- Titles that **directly** describe the **research goal**:
- Examples:
  1. Making Scalable Meta Learning Practical
  2. Understanding and Mitigating Copying in Diffusion Models



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# **Abstract**

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# Make abstract concise and well-structured

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- ❑ Many people **rely on the abstract** to decide whether to obtain or read the entire article.
  - ❑ **Structure** for abstract should be organized by:
    - **First:** stating the **aims** of the study
    - **Followed by:** the basic study **design** and **methods**.
    - **Followed by:** the main **results** including specific data and their statistical **significance**.
    - **Finally**, finish with the **conclusion** and **interpretation**.
  - ❑ Begin writing the abstract **after** you have finished writing your paper.
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# Make abstract concise and well-structured

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- ❑ Write in the **past tense** and check that the information flows well.
  - ❑ Pay attention to the **word limit**
    - When writing your abstract, put your **most concise and important sentences** on a page, join them into an abstract and then count the words.
    - Use **serious word trim**. It is essential that you remove all unnecessary words and expressions.
    - Some journals such as *Science* and *Nature* require very short abstracts(**100 words**). However, the usual limit is **250 words**.
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# Keywords

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# **Choose appropriate keywords**

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- ❑ **Keywords** are used by journals, search engines, and indexing and abstracting services to **classify papers**.
  - ❑ An accurate list of keywords will:
    - ensure **correct indexing**
    - showcase your research to **interested readers**
    - increase the chances of **being cited**.
  - ❑ Keywords must be chosen carefully to:
    - Represent the **content** of your manuscript
    - Be specific to your **field or sub-field**
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# Keywords Example

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- ❑ **Manuscript title:** Prodigy: Improving the Memory Latency of Data-Indirect Irregular Workloads Using Hardware-Software Co-Design
  - ❑ **Poor keywords:** DRAM, workloads, co-design, programming model, compiler, prefetching
  - ❑ **Better keywords:** DRAM stalls, irregular workloads, graph processing, hardware-software co-design, programming model, programmer annotations, compiler, and hardware prefetching.
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# Choose appropriate keywords

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- ❑ Tips for choosing right keywords
    - Include **repeatedly-used** terms/phrases in the paper.
    - Include **common abbreviations** of terms (e.g., GPGPU).
    - Refer to a common **indexing standard** in your discipline (e.g., IEEE, ACM).
    - Finally, before you submit your article, type your keywords into a **search engine** and check if the results that show up match the subject of your paper
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# Conlcusion

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# Writing an Effective Conclusion

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- ❑ Conclusions are often the **most difficult** part to write, and many writers feel they have nothing left to say after having written the paper.
  - ❑ However, most readers read the abstract and conclusion first.
  - ❑ A conclusion is where you summarize the paper's **findings** and generalize their **importance**, discuss **ambiguous data**, and recommend **further research**.
  - ❑ An effective conclusion should provide closure for a paper, leaving the reader feeling **satisfied** that the concepts have been **fully explained**.
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# Writing an Effective Conclusion

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## What you should do:

- Open with a **clear statement** of the **principal findings**, that conveys enough information to cause the reader to **carry on reading**.
  - Explain **why your study is important** to the reader. Prove to the reader, and the scientific community, that your findings are worthy of note.
  - Strive for **originality** in your conclusion. You must establish why your study and your results are original.
  - Conclude with how your **testing supports** your hypothesis.
  - By the time you reach the end of your conclusion, there should be **no question in the reader's mind** as to the validity of your claims.
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# Writing an Effective Conclusion

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## What you should NOT do:

- **Do not rewrite the abstract.** Statements with “investigated” or “studied” are not conclusions.
  - **Do not introduce new information** unrelated to the topic , such as new arguments, evidence, new ideas. etc.
  - **Do not include evidence** (quotations, statistics, etc.) that should be in the body of the paper.
  - **Do not apologize** for doing a poor job of presenting the material.
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# Writing style

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# Academic writing

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- ❑ **Objective** but **not impersonal**
    - it's ok to say "WE DID THIS"
  - ❑ **Not solo** activity: other authors have to be involved!
    - it's not ok to say "I DID THIS"
    - Responsibility of lead author to involve others
  - ❑ Use technical language but go **straight to the point**
  - ❑ Some **jargon** is okay, but keep it simple
  - ❑ Use **simple, short sentences**: subject-verb-object format
    - much better than complex subordinate clause!
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# Verb tenses in scientific manuscripts

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## □ Title

- **Simple present** - “Quantization **is** required for DNN model deployment in an edge device”

## □ Introduction

- **Simple present** to state **background facts**:
    - “DNN **is** composed of”
  - **Present perfect** to report **facts that are still valid**:
    - “Accuracy degradation **has been** observed for several years in these DNN models”
  - **Past** when referring to something that was **unique**:
    - “Resnet **was** first proposed in 2016”
  - or something **no longer true**:
    - “Massive backward propagation **were** believed to be undoable”
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# Verb tenses in scientific manuscripts

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## □ Methods

- **Past** for your **research activity**
  - “We **built** a GPGPU performance model”
- **Past perfect** for **action that occurred before**
  - “Quantization techniques that **had been** previously studied were mostly for computer vision models”

## □ Results

- **Past** for your **experimental activity**
    - “We **evaluated** the effect of roof-line models”
  - **Present** for **proven fact**
    - “Fine-tuning **is** required in quantization techniques as showed by our paper”
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# Verb tenses in scientific manuscripts

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## □ Discussion

- **Present** for **conclusions**

- “We **believe** that prefetching is required for efficient memory access”

- **Past** when **referring to results**

- “We **showed** that... indicating a role for X in A”)

- **Future** for directions of **additional studies**

- “Our findings **will have** an impact on bigdata applications”

# Sources

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- ❑ Elsevier Publishing Campus, March 2015
  - ❑ Eight Steps to Developing an Effective Outline, San Francisco Edit
  - ❑ Porter R, The Journal of Research Administration, 2007
  - ❑ AJE, Verb tenses in scientific manuscripts
  - ❑ Getting Organized to Write- Texas Heart Institute
-

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# **Effective Expression**

**Words (and reader's attention) are precious.  
Use them wisely!**

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# Effective sentences

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## □ Eliminate **wordiness**

- The cells were red in color
- The beaker was filled to capacity

## □ Additional **redundant** words:

- combine together
  - completely empty,
  - eliminate altogether,
  - fewer in number,
  - herein we describe,
  - oval in shape,
  - very unique
-

# Effective sentences

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## □ Eliminate **expendable** words

- Needless to say
  - It goes without saying
  - It is important to note that
  - The majority of (most)
  - Had an effect on (affected)
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# Effective sentences

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## □ Additional examples:

- Measurements of blood pH were made with a radiometer capillary electrode with a radiometer capillary electrode.

## □ Revise as:

- Blood pH was measured with a radiometer capillary electrode.
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# Grammar

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# Common grammar errors

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- ❑ **Subject and verb must agree in number**
    - The cell line was treated with...
    - Cells were treated with...
  
  - ❑ **Collective numbers should be treated as singular (unless individual members are specified)**
    - “Fifty percent of the control group was treated with RT
    - Fifty percent of the patients were treated with RT
-



# Common grammar errors

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- ❑ **Terms** joined by “and” should be plural
    - Patient A and Patient B were examined for metastases
  
  - ❑ **Terms** joined by “or” or “nor” will be singular or plural depending on nearest element:
    - Neither the hospital nor the physicians were responsible.
    - Neither the physicians nor the hospital was responsible.
  
  - ❑ **Indefinite pronouns** depend on term they refer to
    - Some of the values were corrected for errors
    - Most of the sample was transferred to a test tube
-

# Additional writing tips

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## □ Capitalization

- Do not use for **emphasis**
- Do not capitalize the **second part** of hyphenated terms
  - Follow-up studies
- Do not capitalize words derived from an **acronym**
  - ELISA- enzyme-linked immunosorbent assay



# Sources

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- ❑ Scientific, Medical and General Proofreading and Editing
  - ❑ Manuscript Writing Tips, Gwosdow Associates, Science Consultants
  - ❑ Tips about Physics Methods: Dr. Jing Wang, Rad Onc
  - ❑ Examples taken from “Pechenik, Jan A. *A short guide to writing about Biology*. pp. 54-102, Tufts University: Harper Collins College Publishers”
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**Thank you!**

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