2021 Research Plan

고려대학교 NLP&AI 연구실
이정우

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TOEIC Model

101. The chief financial officer ------- firm's budget before it was approved at the board meeting last Friday.

(A) will revise
(B) revises
(C) revised
(D) is revising

102. In order to expedite the progress of the company's expansion plan, Mrs. Wilson will be at ------- office with all of the executives all day long tomorrow.

(A) her
(B) hers
(C) she
(D) herself

103. All faculty members are required to attend Queens College's annual awards ------- at the Quattro Restaurant next Thursday.

(A) group
(B) winner
(C) ceremony
(D) meeting

104. It became much easier to go on a business trip to Swden ------- the bullet train, X2000, was built last year.

(A) hence
(B) while
(C) after
(D) beyond

105. Please return the registration form, enclosing your ------- membership payment in the amount of $70.

(A) initially
(B) initiate
(C) initiation
(D) initial

106. Once the old factory in Detroit has been -------, the entire manufacturing process is expected to be 35 percent faster.

(A) commended
(B) thrived
(C) eradicated
(D) renovated

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TOEIC Model


```
{
    "1": {
        "1": "suffer",
        "2": "suffers",
        "3": "suffering",
        "4": "suffered",
        "answer": "suffered",
        "question": "The assets of Marble Faun Publishing Company ___ last quarter when one of their main local distributors went o
    },
    ...
    "3625": {
        "1": "across",
        "2": "into",
        "3": "between",
        "4": "despite",
        "answer": "across",
        "question": "Employees ___ several departments have been encouraged to minimize costs."
    }
}
```


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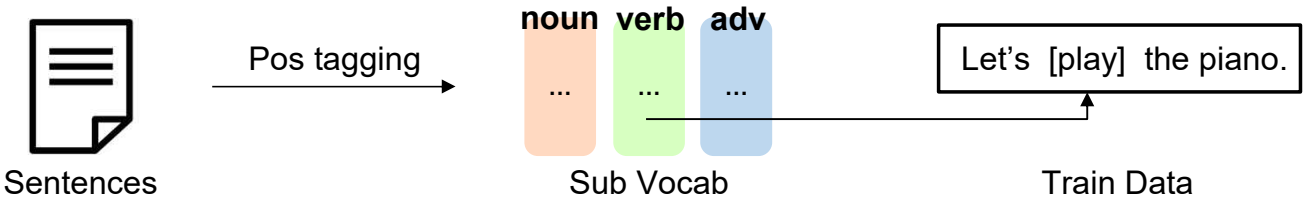
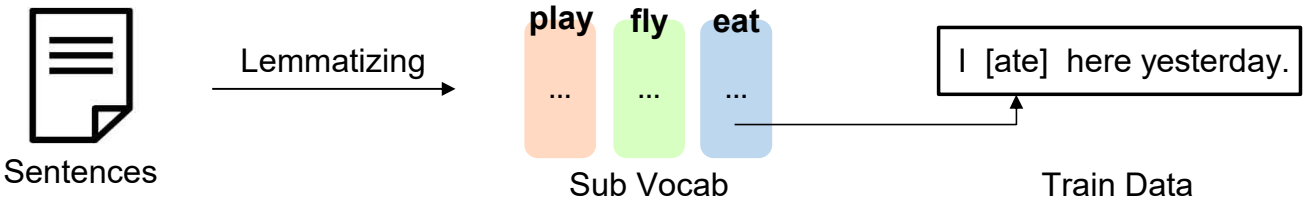
TOEIC Model

- Pos tagging 기반 보기 생성



- NLTK 원형 복원을 활용한 보기 생성



- 생성 모델을 통한 보기 생성

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영어 특허 문서 목적 문장 추출

CAMERA MODULE

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application is a continuation application of and claims the priority benefit of application Ser. No. 15/793,999, filed on Oct. 26, 2017, now allowed, which claims the priority benefits of China application serial no. 201610946242.9, filed on Oct. 26, 2016, U.S. provisional application Ser. No. 62/455,556, filed on Feb. 6, 2017, and U.S. provisional application Ser. No. 62/468,898, filed on Mar. 8, 2017. The entirety of each of the above-mentioned patent applications is hereby incorporated by reference herein and made a part of specification.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The invention relates to a photoelectric module, and more particularly, to a camera module.

Description of Related Art

[0003] With the continuous evolution and improvement of electronic technology and manufacturing techniques, novel consumer electronic products are also continuously emerging. Electronic products such as computers, mobile phones, and cameras have become necessities in the modern world, and camera modules have been extensively applied in these electronic products. In particular, the camera modules allow the users to record everyday life anytime, and therefore the camera modules are essential for the image capturing function in handheld electronic apparatus such as mobile phones, tablet computers, or cameras, for the surveillance function in security cameras, dashboard cameras, or backup camera, or even for industrial or medical imaging systems.

SUMMARY OF THE INVENTION

[0004] The invention provides a camera module that can simplify the assembly process of the camera module and inspect the lens set in the camera module during the assembly.

[0005] An embodiment of the invention provides a camera module including a lens holder, a lens barrel, a first lens set, a second lens set, and an image sensing device. The lens holder includes a limiting portion. The lens barrel is disposed in the limiting portion. The first lens set is disposed in the lens barrel. The second lens set is fixed in the lens holder, wherein the first lens set and the second lens set respectively include at least one lens. The image sensing device, the first lens set and the second lens set have a common optical axis, and the second lens set is located between the first lens set and the image sensing device, wherein the position of the lens barrel is adjustable in the limiting portion when assembling the camera module, and the lens barrel is disposed on the lens holder enabling the limiting portion to be located on a periphery of the lens barrel, and a gap is arranged between the limiting portion and the lens barrel such that the position of the lens barrel is adjustable along a direction perpendicular to the optical axis.

[0006] In an embodiment of the invention, the camera module further includes a driving device located in the limiting portion and connected to the lens barrel to drive the lens barrel enabling the first lens set to move along a direction parallel to the optical axis. In particular, the driving device adjusts the position of the first lens set to form a spacing between the first lens set and the second lens set along the optical axis.

[0007] In an embodiment of the invention, the camera module further includes at least one shading element disposed on an assembly portion of any lens in the first lens set or the second lens set.

[0008] In an embodiment of the invention, the shading element is disposed between the second lens set and the lens holder.

[0009] In an embodiment of the invention, the shading element is disposed between any two adjacent lenses in the first lens set or the second lens set.

[0010] In an embodiment of the invention, the camera module further includes a substrate. The image sensing device and the second lens set are located in an accommodating space formed by the substrate and the lens holder, and the substrate is electrically connected to the image sensing device.

[0011] In an embodiment of the invention, the camera module further includes a package structure disposed between the substrate and the lens holder. The package structure at least covers a portion of the image sensing device.

[0012] In an embodiment of the invention, the camera module further includes an infrared filter film disposed on the surface of any lens in the first lens set and the second lens set.

[0013] In an embodiment of the invention, the camera module further includes a protective cover, wherein the lens barrel is located between the protective cover and the lens holder, and the protective cover has an infrared filter film thereon.

[0014] In an embodiment of the invention, the first lens set or the second lens set includes an infrared filter lens.

[0015] In an embodiment of the invention, the assembly portion of any lens in the first lens set or the second lens set has a surface treatment layer.

[0016] In an embodiment of the invention, the lens holder further comprising a protruding portion extending in a horizontal direction from the limiting portion, and the second lens set fixed in the protruding portion.

[0017] In an embodiment of the invention, the protruding portion and the limiting portion are integrally formed.

[0018] In an embodiment of the invention, the camera module further comprising a driving device located in the limiting portion and connected to the lens barrel, wherein the gap is arranged between the limiting portion and the driving device.

[0019] Based on the above, in the camera module of the invention, the lens holder, the image sensing device, and the second lens set are disposed on the substrate, and the first lens set can be passively aligned in the camera module by disposing the lens barrel within an area defined by the lens holder during the assembly process. The imaging of the assembled image sensing device, the first lens set and second lens set is inspected. The relative position of the lens barrel in the lens holder is adjusted according to the inspection to actively align the first lens set in the camera module. Therefore, the assembly process of the camera module can be simplified, and the quality of the camera module can be inspected during the assembly.

[0004] The invention provides a camera module that can simplify the assembly process of the camera module and inspect the lens set in the camera module during the assembly.

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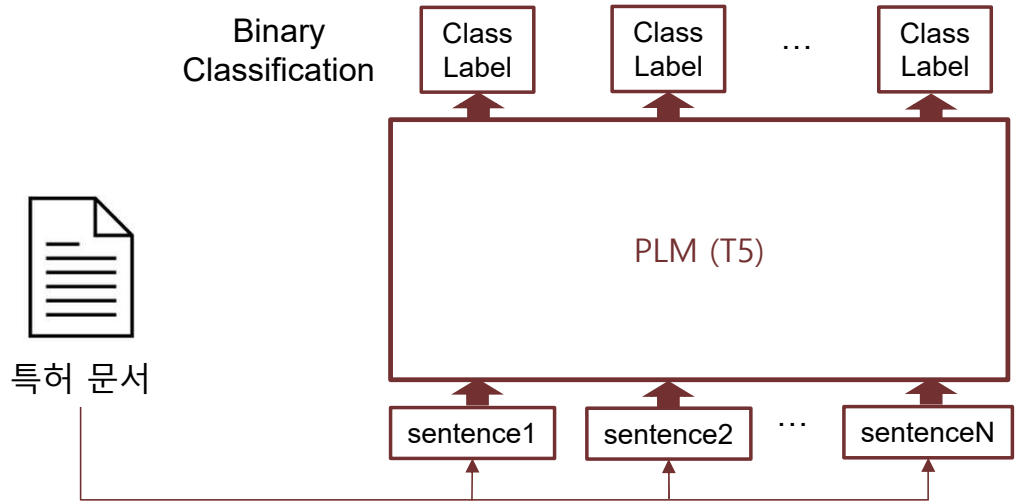
영어 특허 문서 목적 문장 추출

특허 도메인에 특화된 PLM기반 목적 문장 추출 모델 설계



Baseline 모델 성능(SCIBERT의 Sentence Classification 성능 실험)

Field	Dataset	System	SOTA	BERT-Base		SCIBERT	
				Frozen	Finetune	Frozen	Finetune
Computer Science	ACL-ARC	F1-score	67.9	62.04	63.91	60.74	**70.98**
Multidomain	SciCite	F1-score	84.0	84.31	84.85	85.42	**85.49**

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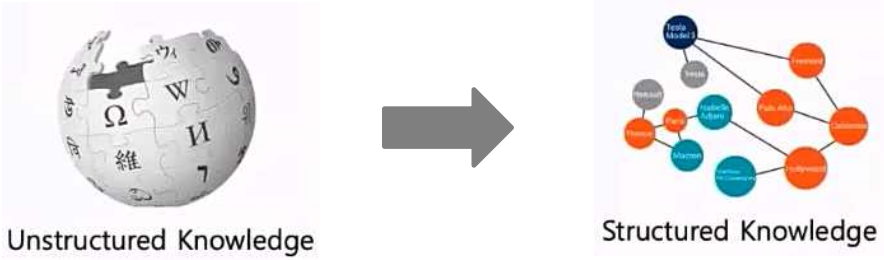
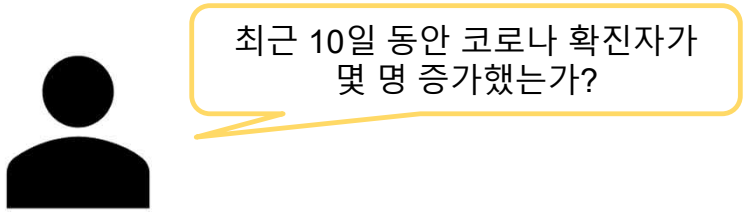
Dialogue System

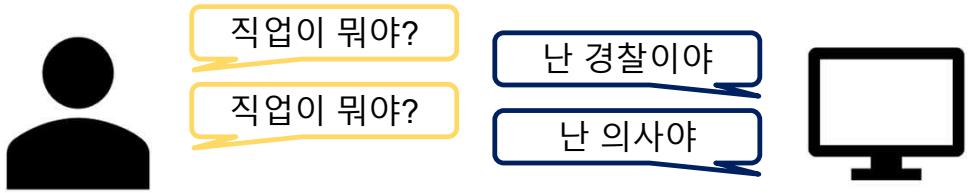
- 동적으로 진화하는 지식 그래프



- 모델의 지식 활용



- 대화의 일관성 유지



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Thank you

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