

1인 방송 하이라이트 편집

Assistance Tool

1조 안진
마

신상훈 김연수 송성재
박형준 허진선 윤정연



1차 피드백 답변서 - Video

Q. 음량과 채팅 양 만으로 피처를 정한 이유를 정확히 기술할 필요가 있음

| 검색어 | 검색결과물 |
|--|---|
| Video 비디오 랭킹에 관한 내용이 주를 이룸 | Most viewed YouTube videos of all time 2019 Fastest viral videos based on number of views in 24 hours as of 2019 Hours of video uploaded to YouTube every minute 2007-2019 Leading Facebook video publishers worldwide 2019, by views Fastest viral videos based on days needed to reach 1 billion views 2020 All-time most viewed YouTube channel owners 2020 Most popular YouTube channels from Canada 2020, by video views Average YouTube video length 2018, by category Trending YouTube Video Statistics and Comments YouTube: most subscribed kids content channels 2020 YouTube: annual beauty content views 2009-2019 Frequency of video streaming on YouTube in Poland 2019 Most popular YouTube content categories 2016, by uploads Leading U.S. video properties 2020, by unique viewers YouTube: most popular brand channels 2020, by total number of video views U.S. computer and video gamers from 2006-2019, by gender YouTube most watched Latin artists' music videos 2019 Leading U.S. video streaming services 2019, by monthly average users |
| 검색어 | 결과물 |
| video highlight 특정 주제에 대한 비디오, 비디오 자체에 대한 내용이 주를 이룸 | Interviews with Puerto Rico residents 2-months post-Maria Library holdings for EX1304: Northeast U.S. Canyons Exploration on NOAA Ship Okeanos Explorer between 20130731 and 20130817 [Log B] Library holdings for EX1102: ROV and Camera Sled Integration and Shakedown on NOAA Ship Okeanos Explorer between April 4, 2011 and April 28, 2011 Data from: AE-Net: Learning Deep Audio Features for Video Analysis Data from: E-LEARNING BY COMPUTER VIDEO ANALYSIS THE KEY ELEMENTS OF SPORTS TECHNIQUE OF YURCHENKO VAULT IN WOMEN'S ARTISTIC GYMNASTICS |

| 검색어 | 결과물 |
|---|--|
| Youtube 유튜브 영상 트렌드, 유튜브 랭킹 등에 대한 내용이 주를 이룸 | VALORISATION OF VIDEO REGISTRATIONS IN THE VIRTUAL GUIDANCE OF TEACHING PRACTICE Video about the evolution of the acoustic waves around cylindrical shell Data from: Video 3d Looking to Learn: The Effects of Visual Guidance on Observational Learning of the Golf Swing 2015 Snapshot Video Series Stimulus illustrations, timing characteristics and subjective impressions of task difficulty How Online Access Changed Amateur Video Editing Data from: A novel system for bio-coupled eye-tracking in vertebrates with laterally placed eyes Data from: A convolutional neural network for detecting sea turtles in drone imagery Data from: POSSIBILITIES OF PLAY ACTIONS EVALUATION IN VOLLEYBALL Assessing video presentations as environmental enrichment for laboratory birds YouTube: most subscribed channels 2020 YouTube BoundingBoxes Trending YouTube Video Statistics and Comments Hours of video uploaded to YouTube every minute 2007-2019 YouTube Video and Channel Metadata YouTube Trending Video Statistics with Subscriber YouTube Critics Actor Search and Recommendation Networks YouTube Comedy Slam YouTube Faces With Facial Keypoints YouTube usage penetration in the United States 2019, by age group JANE: Improving Virtual Reality - YouTube Data from: Nervous system examination on YouTube Dataset Abuse YouTube Comments YouTube Video Downloader Data for Modelling and Statistical Analysis of YouTube's Educational Videos: A Channel Owner's Perspective Google Youtube Video Statistics Identifying trends in nursing start-ups using text mining of YouTube content YouTube Firearm Influencer Assessment May 2019 YouTube Videos - id,Title,Description and Category Disturbed YouTube for Kids: Characterizing and Detecting Inappropriate Videos Targeting Young Children YouTube science channels word frequency |

| 검색어 | 결과물 |
|---|--|
| video main point extraction 동영상에서 피처를 추출하는 내용이 더러 등장하지만 특정 이벤트에 대한 내용으로 축소되었음, 스트리밍 영상의 하이라이트 추출에 대한 내용을 다루지 않음. | Parallel Key Frame Extraction for Surveillance Video Services in a Smart City extraction video Biodiversity and Habitat Data Extracted from Video Files Recorded at Jarvis, Kingman, and Palmyra During July 2005 HURL Cruise Data from: Efficient and accurate extraction of in vivo calcium signals from microendoscopic video data Data from: Efficient and accurate extraction of in vivo calcium signals from microendoscopic video data Data from: Use of a low fidelity contained manual tissue extraction simulation to improve gynecology resident competence and confidence Percent surficial cover from maximum likelihood analysis of images extracted from underwater video surveys at the Tappan Zee, Robins Island, and Shelter Island locations Video Shot Detection And Key Frame Extraction Using Fisher Shneider Dwt And Srd On the Extraction of Spread-Spectrum Hidden Data in Digital Media FIRMA-EAS: Project: Automated Feature Extraction Data Sets: Event Record and Seabed Usage Data Extraction of Composite Visual Objects from Audiovisual Materials Data from: Modeling Social and Temporal Context for Video Analysis Mobile detection of autism through machine learning on home video: A development and prospective validation study Data from: Fast human detection for video event recognition |
| 검색어 | 결과물 |
| Streaming 스트리밍 서비스의 랭킹, 통계, 수익 등이 주를 이룸. | Leading U.S. video streaming services 2019, by monthly average users Most used video streaming and downloading services in the United Kingdom (UK) 2019 Number of Netflix paid streaming subscribers worldwide 2011-2019 Most popular music streaming services in the U.S. 2019-2020, by audience Subscriber share of music streaming services: Italy, preferred live video streaming sources 2016 Watching movies in the theater vs. via a streaming service U.S. 2019-2020 Video streaming growth worldwide: coronavirus impact 2020 |

본 프로젝트 알맞는 Video 데이터셋을 찾지 못함



1차 피드백 답변서 - Emotion recognition

Q. 긍정/부정을 넘어 감정 분석을 위한 방법의 구체적으로 마련할 필요가 있음



Joy



Sadness



Anger



Surprise



Love



Fear



Neutral

7가지 감정 분류 구현



1차 피드백 답변서 - Labeling objectivity

Q. 데이터 셋 참조 문제 등으로 인해 결과물의 신뢰성에 대한 객관적 검증이 필요할 것으로 보임



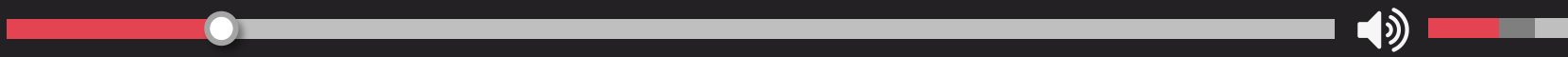
Chat



Vote



Labeling

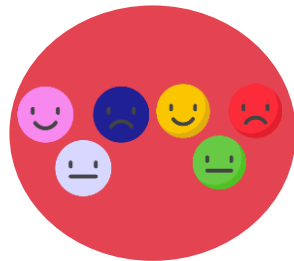




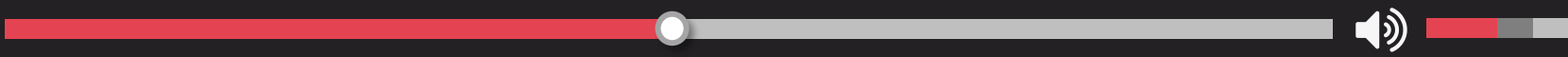
Backend-Frontend 연결

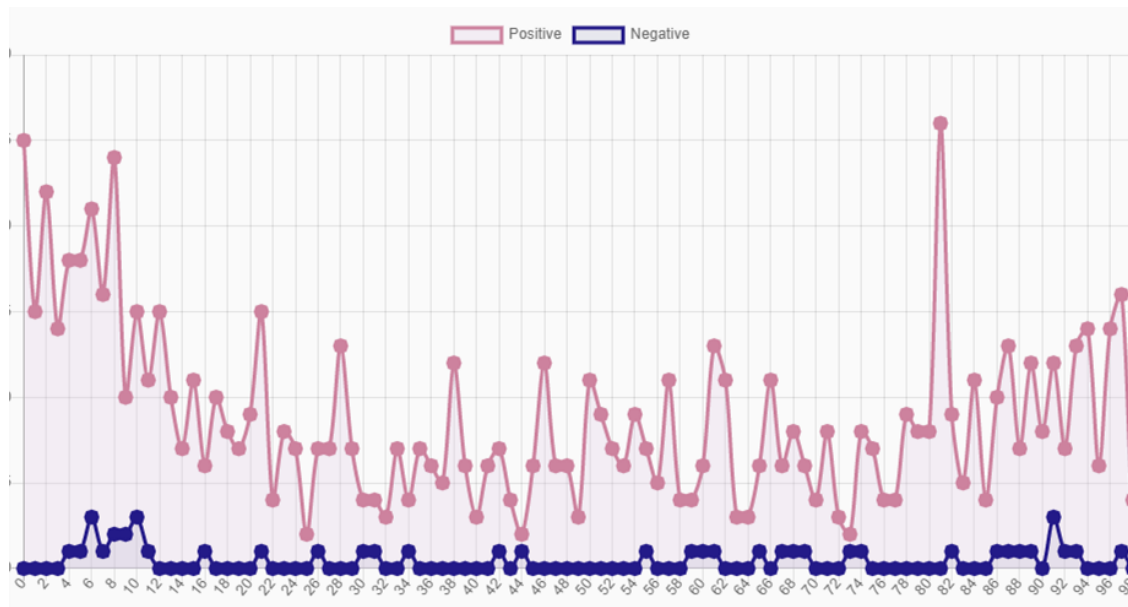


분석한 데이터 시각화



다양한 감정 분류





긍부정 분류 그래프



부분 단어 토큰화 기법을 이용한 인터넷 방송 채팅 텍스트의 감정 분류

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Sentiment Classification for Chatting Text of Internet Broadcasting by Using Subword Tokenization Model

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Jin-Seon Heo, Jeong-Yeon Yun, Hyun-Young Lee

Dept of Computer Science, Kookmin University

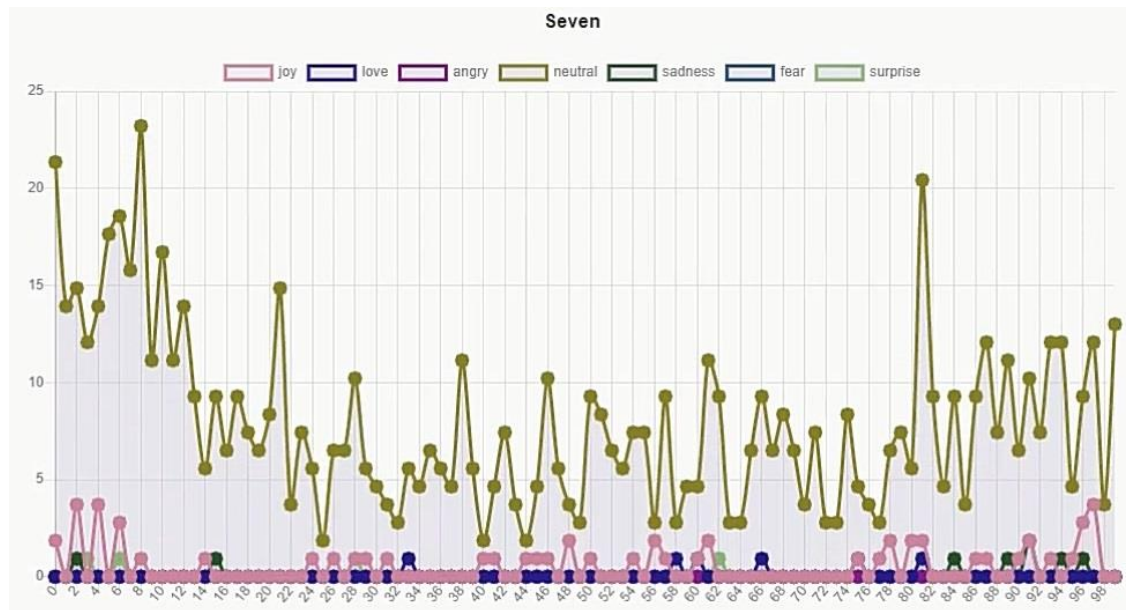
요 약

본 논문에서는 인터넷 방송 크리에이터를 위한 시청자 채팅 텍스트의 감정 분류 기법에 관하여 연구하였다. 인터넷 방송 채팅 텍스트를 토큰화하여 워드 임베딩을 통해 각 토큰을 연속적인 벡터 공간으로 표현하고, 다층 퍼셉트론 모델에 토큰열을 임베딩한 벡터를 입력으로 한다. 인터넷 방송의 채팅 텍스트에 대해서 형태소 분석기와 부분 단어 모델을 이용하여 토큰화하고 채팅 텍스트에 대한 감정 분류기를 다층 퍼셉트론을 이용하여 학습 모델을 구현하였다. 형태소 분석기와 부분 단어 토큰화 기법을 사용했을 때 감정 분류기의 성능을 비교하였으며 좌우 문맥을 고려한 부분 단어 토큰화 기법의 성능이 우수함을 확인하였다. 학습 및 실험을 위해 실제 인터넷 방송 채팅 텍스트에 대한 긍정 부정 데이터 셋을 구축하였다.

올해 7월 개최되는 한국정보과학회 KCC2020 학부생 논문 경진대회에 제출한 논문 일부

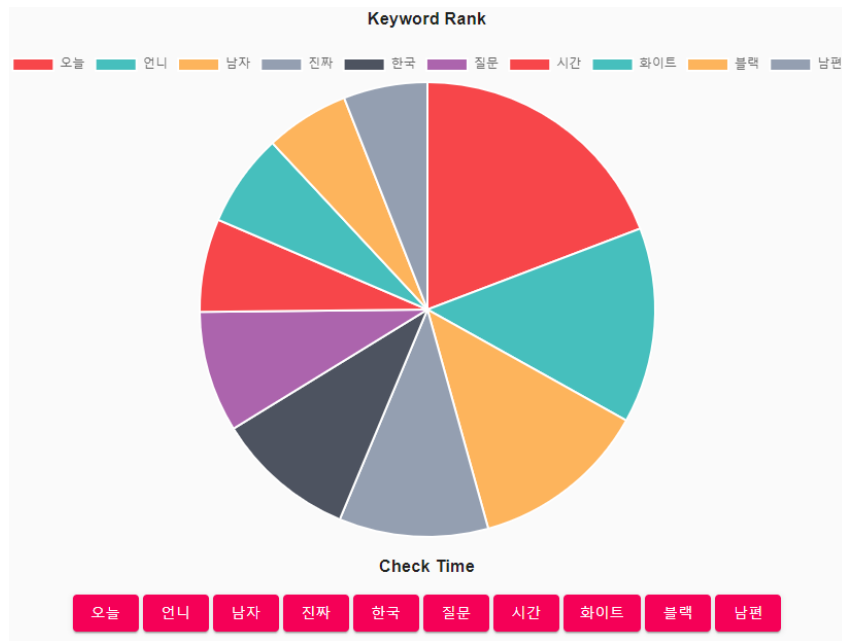


2 API - 채팅 7가지 감정 분류



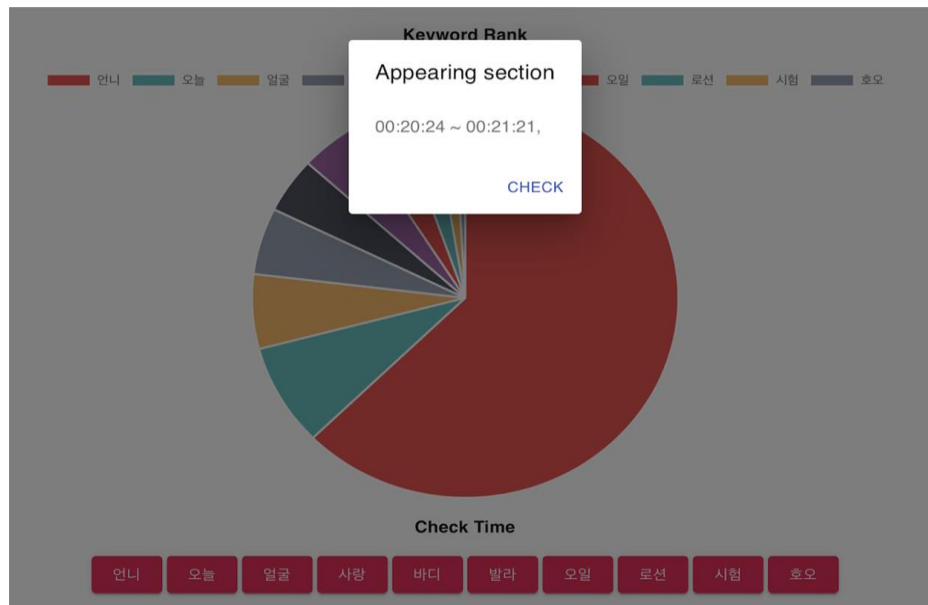
7가지 감정 분류 그래프





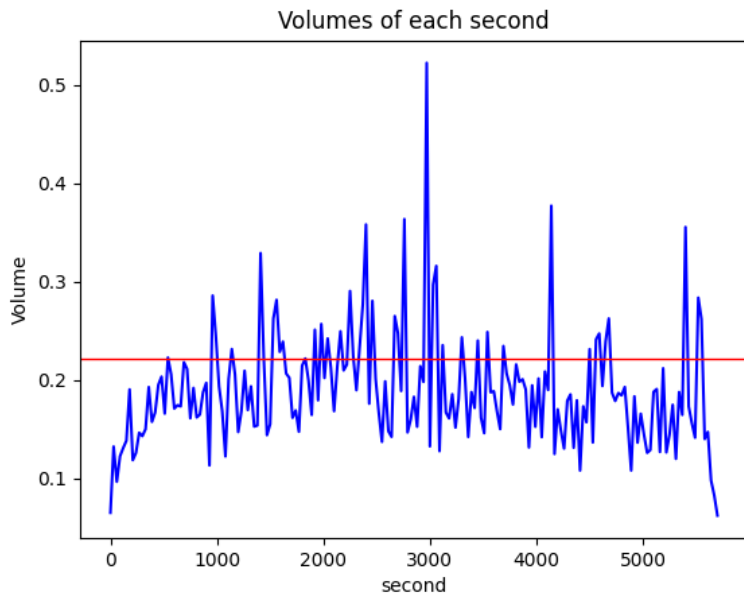
채팅 내 빈도 수 상위 10개 키워드 그래프





키워드 선택시 등장 구간 지표화





소리 평준화 그래프



2 API - 하이라이트 추출

| Highlight Point | | |
|-----------------|----------|---------------|
| Highlight | Point | Sound or Chat |
| Highlight1 | 00:23:04 | chat |
| Highlight2 | 00:31:21 | chat |
| Highlight3 | 00:46:00 | sound |
| Highlight4 | 00:56:04 | chat |
| Highlight5 | 02:05:30 | sound |
| Highlight6 | 02:11:00 | sound |

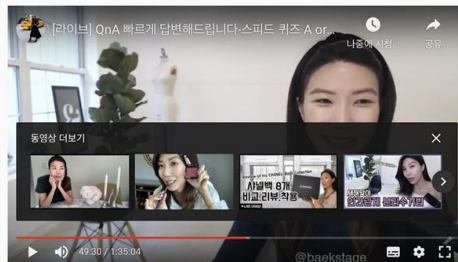
하이라이트 추출



| | | |
|------------|----------|-------|
| Highlight5 | 00:49:30 | sound |
| Highlight6 | 01:09:00 | sound |

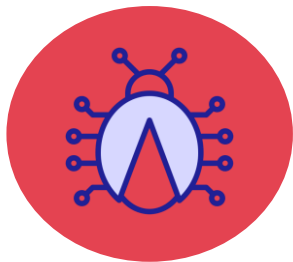
Click on the "Highlight Point" table to go to the click position

Video



하이라이트 지점 확인





Bug 수정



API 안정화



THANK YOU!

