**Big\_Patent Summarization**

The below models have been implemented based on the Big\_Patent paper that is provided. These models are built for large-book summaries and they are working well on the patent summaries as well.

I have tested using abstract, First Claim, abstract and First claim combined on two Google patents US11172208, and US11342001. The models are giving good results for both short and long text but they are giving excellent outputs for the long text. They don’t require dividing the input into chunks but rather take the larger inputs. All of these models use the Transformers library and fine-tuned models for the summary.

**pegasus-x-large-book-summary:**

<https://colab.research.google.com/drive/1xIFGpAp_lVGCKBL04b6sS3lDS5e-uU2v>

**long-t5-tglobal-base-16384-book-summary:**

<https://colab.research.google.com/drive/1O18qniuyPupAvlnNCM1AFZIJADAFLeRb>

**led-base-book-summary.**

<https://colab.research.google.com/drive/1nFbctrggpnWKRVl2ulquKPQ5cjilvSLH>

**First Patent :**

**Abstract :** A method and device for routing data packets of a wireless terminal device in a communication network. When Open system Authentication is used, the system operates similarly as the current Nokia Operator Wireless LAN system, in which the terminal device and the access controller are the parties involved in the authentication. The access controller relays information relating to the authentication between the terminal device and an authenticating server, and it is capable of updating independently the list of users it maintains. When authentication according IEEE 802.1X authentication, the access point operates according to the IEEE 802.1X standard, serving as the authenticating party and relaying information relating to the authentication between the terminal device and the authentication server. In addition, the list maintained by the access controller is updated after a successful authentication, for example by the access point or the authenticating server.

**Claim :**   
  
"1. A method comprising;

establishing a communication connection between a wireless terminal device and an access point,

identifying at the access point a parameter relating to an authentication method of the wireless terminal device, said authentication method being identified by receiving an association request message from the wireless terminal device,

classifying the wireless terminal device on the basis of the identified parameter in the communication network, and

directing data packets of the wireless terminal device to a logical channel selected on the basis of the classification of the wireless terminal device, different classifications being related to separate logical channels,

the wireless terminal device being configured to use one of the following authentication methods in order to authenticate itself to a communication network: an 802.1x protocol authentication method wherein the access point relays authentication information directly between the terminal device and an authentication server, and an open system authentication method wherein the access point relays authentication information between the terminal device and the authentication server via an access controller, wherein the access point is configured to use both the 802.1x protocol authentication method and the open system authentication method."

**pegasus-x-large-booksum:**  
  
A method of encoding a viewport, which is a portion of a video stream, comprises selecting a first viewport and encoding the first viewport with a higher quality than a second viewport. The second viewport is then encoded with a lower quality so as to provide a gradual change in the quality of the video between the two viewports.

**long-t5-tglobal-base-16384-booksum-V12:**

A method for encrypting a picture in a viewport is described. First, it is shown that a pre-recorded first image can be used as the starting point of an enciphered second image. The second image is then presented as a "background viewport," which is further described as having a higher quality than the first image.

**led-base-book-summary :**

An apparatus and a computer program can be used to capture video streaming from multiple cameras, streaming devices, or other applications. The method described above is the "decoding" of primary viewport in order to increase picture quality by decreasing quantization parameters between the first and second representation. In addition, the method includes "encoding" a boundary region that provides continuous picture quality changes from a foreground viewport to a secondary viewport.

**Patent 2:**

"1. An apparatus comprising:

at least one processor; and at least one memory including computer program code; the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus at least to:

receive a video stream, a plurality of audio signals and audiovisual metadata that defines a spatial relationship between images of said video stream and said plurality of audio signals that serve as basis for a spatial audio signal;

determine presence of at least a first sound source and a second sound source depicted in an image of the video stream, wherein respective sounds originating from the first and second sound sources are to be represented in said spatial audio signal by a single directional sound component;

determine a first zoom factor threshold for zooming said image of the video stream into a corresponding image of a video signal based at least in part on respective positions of said first and second sound sources in said image of the video stream in dependence of said audiovisual metadata; and

zoom said image of the video stream into said corresponding image of the video signal in accordance with the first zoom factor threshold." According to an example embodiment, a technique for zooming one or more images of a video stream into corresponding one or more images of a video signal for rendering together with a spatial audio signal that conveys a spatial audio image representing a range of sound directions that spatially correspond to a respective range of positions in images of the video signal is provided, the technique comprising: receiving the video stream, a plurality of audio signals and audiovisual metadata that defines a spatial relationship between images of the video stream and said plurality of audio signals that serve as basis for said spatial audio signal; determining presence of at least a first sound source and a second sound source depicted in an image of the video stream, wherein respective sounds originating from the first and second sound sources are to be represented in said spatial audio signal by a single directional sound component; determining a first zoom factor threshold for zooming said image of the video stream into a corresponding image of the video signal based at least in part on respective positions of said first and second sound sources in said image of the video stream in dependence of said audiovisual metadata; and zooming said image of the video stream into said corresponding image of the video signal in accordance with the first zoom factor threshold.

**pegasus-x-large-book-summary :**

A method of encoding a viewport, which is a portion of a video stream, comprises selecting a first viewport and encoding the first viewport with a higher quality than a second viewport. The second viewport is then encoded with a lower quality so as to provide a gradual change in the quality of the video between the two viewports.

**long-t5-tglobal-base-16384-booksum-V12 :**

An apparatus for receiving a sequence of signals and an associated set of metadata that define a relationship between the signals. A first step is to determine whether a sound source is present at least as a part of the first signal, and second steps are to determine how each sound source corresponds to another sound source. The first step determines that a certain amount of time must be spent in order to obtain a picture of the stream into which the signal is being rendered. The second step calculates that the first step will result in a zooming of the image from the beginning to the end of the given time period.

**led-base-book-summary :**   
  
An apparatus consisting of: at least one Processor, and at least One memory including Computer program code. An apparatus with a "accelerator" or "cadette" running on it. A high-performance computing system capable of delivering, receiving, and/or hauling large amounts of data is used to achieve this goal.