tuneR - MIDI Demo

Taqi

Example

We'll be looking at the midi data for a Calvin Harris song named "blame". It uses the `tuneR` package to read the midi binary into a neat dataframe of the score using the package's `getMidiNotes` function.

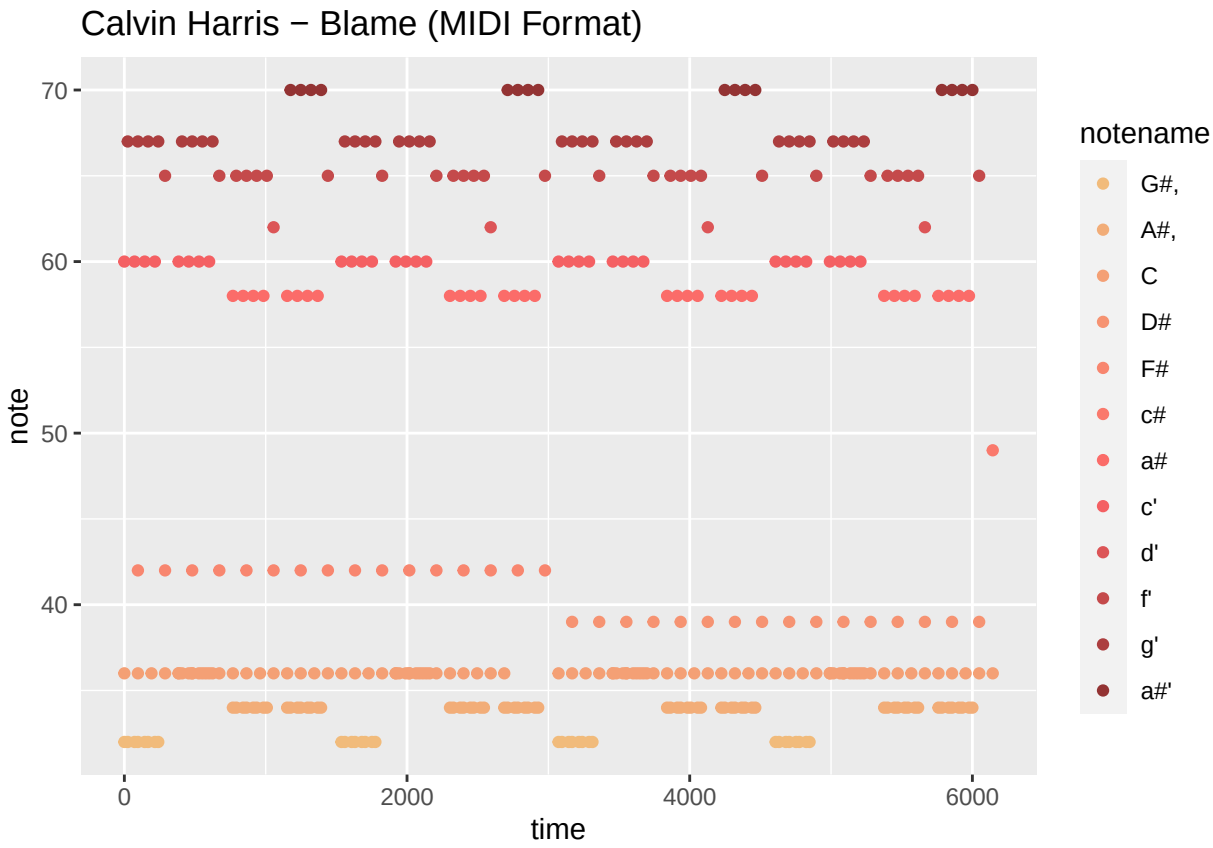
```
# Read midi binary data
blame_midi <- readMidi("data-midi/blame.mid")
# Get midi dataframe
blame <- getMidiNotes(blame_midi)
# Get a glimpse
head(blame)
```

```
##   time length track channel note notename velocity
## 1    0     24     3       7   60       c'      100
## 2   24     24     3       7   67       g'      100
## 3   72     24     3       7   60       c'      100
## 4   96     24     3       7   67       g'      100
## 5  144     24     3       7   60       c'      100
## 6  168     24     3       7   67       g'      100
```

Visualizing the Score

In the end, a musical score could be (unfairly) reduced to be just a vector of notes. Harmony is just a vertical vector; melody, a horiztonal vector. We can visualize the score below.

```
# Set palette
pal <- wes_palette(21, name = "GrandBudapest1", type = "continuous")
# Plot score
blame %>%
  ggplot(aes(x = time, y = note, color = notename)) +
  geom_point() +
  scale_color_manual(values = pal) +
  labs(title = "Calvin Harris - Blame (MIDI Format)")
```


Calvin Harris − Blame (MIDI Format)
note
70
60
50
40
0
2000
4000
6000
time
notename
G#,
A#,
C
D#
F#
c#
a#
c'
d'
f'
g'
a#'