DNN-LSTM

To talk about this approach,
~~lets discuss about~~ multitask neural network

because in general neural networks solves
one tasks such as classification, In this
approach two tasks were solved by sharing
some of ~~the~~ hidden layer among them.

* In this approach they are using a
multitasking neural networks and using
LSTM on top of them, because for
voicing detection part the current output
of the vocally classifier depends on the
previous part so we need LSTM.

* There are two tasks, one is pitch estimation
to get the pitch of the hum and other is
voicing detection whether melody is present
or not. therefore we can only focus on
* parts where melody is present.

⇒ for pitch extraction we didn't quite understood about why they were searching LSTM?

⇒ the two forks are classification based where the voicing is classified (0/1) (present/not), the pitch is classified into two bands each when each is $1/9$ semitone, because human hearing starting to 65Hz to 1.36KHz octaves. with $1/9$ semitone resolution.

⇒ After the sequence is generated, we will transform the relative to relative difference in the sequence.

⇒ for the search part we will be using unified search.

↓

→ we will be dividing the sequence into pairs of 4
APREG

RP3G

then we will divide into
3 game and then
same procedure
and again 2 pair
and get the result with
the highest as the answer.

and reasoning ....
songs in the database who
also we will divided into
4 pairs

⇒ by having 4 pairs we
con compare both
songs and hmm and get
a collection of songs
which matches.

drawbacks:
⇒