



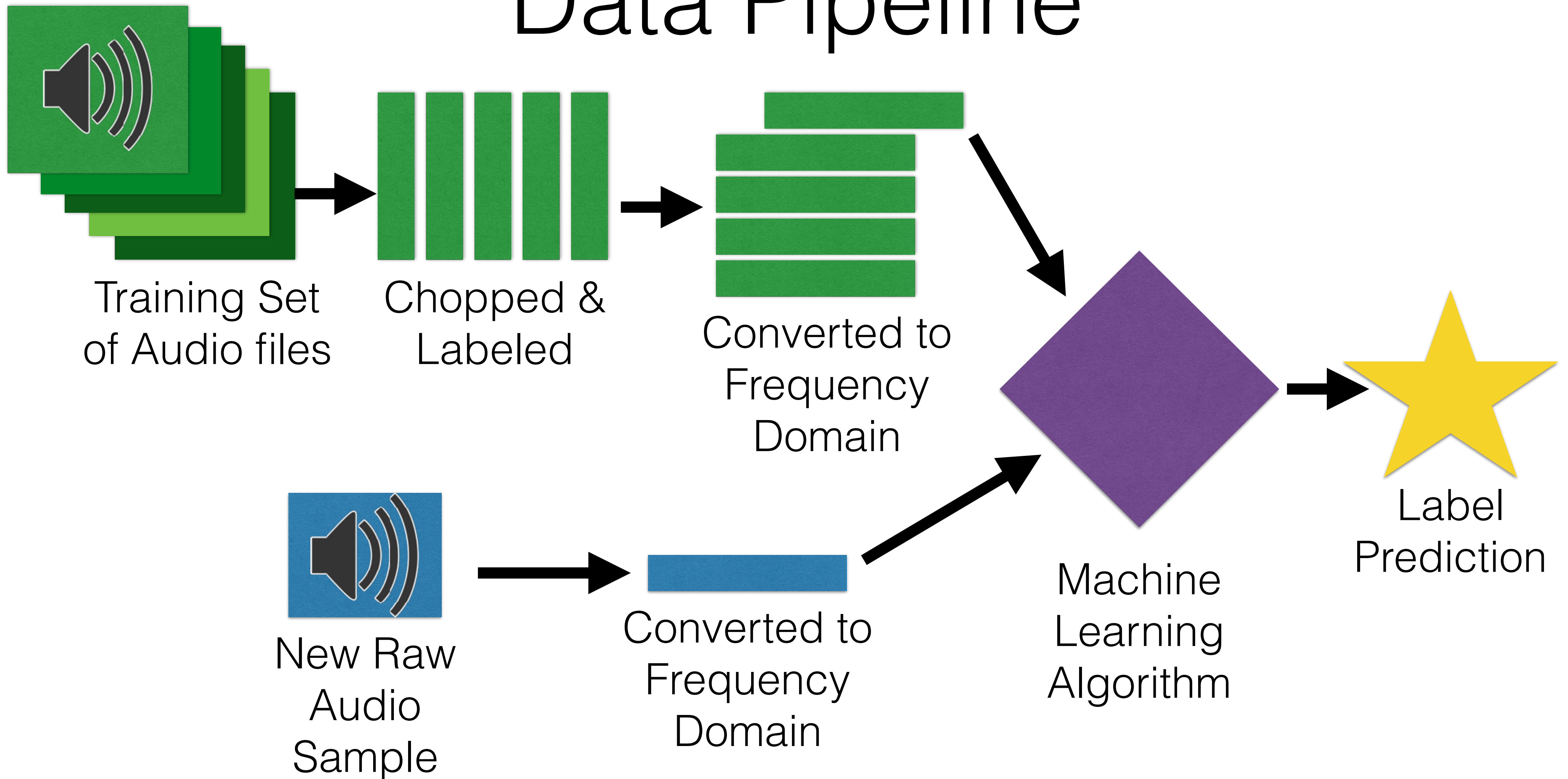
Sing symphonies with...

A.Cappella

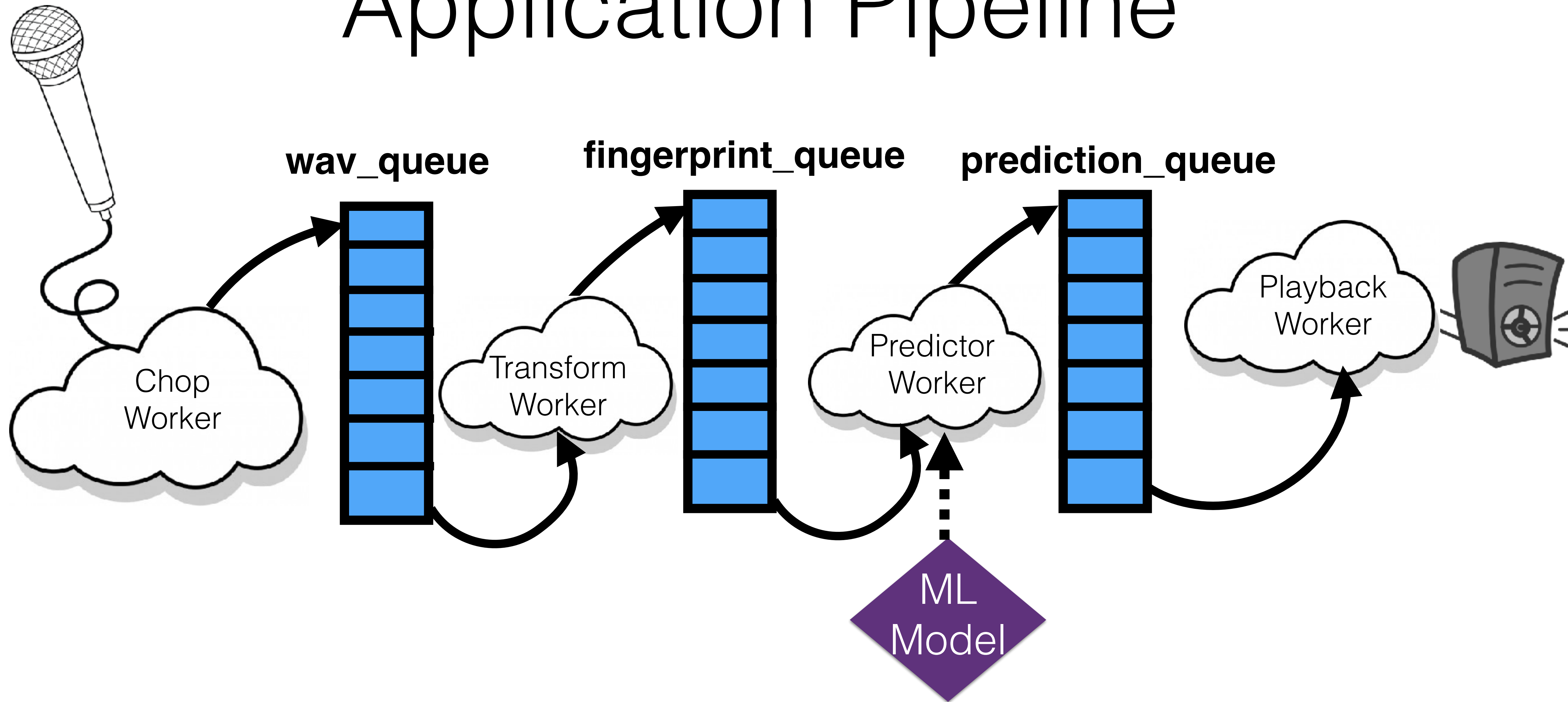
Intelligent Music Accompaniment

Lorenzo Brown
lrnzbr@gmail.com

Data Pipeline



Application Pipeline



Prototype Demo



Soloist

```
Lorenzos-MacBook:code lrmzbr$ python controller.py
Firing up A Cappella!
A Cappella is ready...start singing at any time!
2016-03-21 05:27:50.320 python[89922:13741878] 05:27:50.319 WARNING: 140:
This application, or a library it uses, is using the deprecated Carbon Comp
onent Manager for hosting Audio Units. Support for this will be removed in
a future release. Also, this makes the host incompatible with version 3 aud
io units. Please transition to the API's in AudioComponent.h.
PREDICTED SOLOIST AT: 00:39
playing at 00:39 with time delay of 1.1646668911
2016-03-21 05:27:55.599 python[89922:13741987] 05:27:55.599 WARNING: 140:
This application, or a library it uses, is using the deprecated Carbon Comp
onent Manager for hosting Audio Units. Support for this will be removed in
a future release. Also, this makes the host incompatible with version 3 aud
io units. Please transition to the API's in AudioComponent.h.
```


Outcomes

Performance

- ~70% Cross-Validation accuracy with Linear Support Vector Classifier (with 270 classes)

Future Enhancements

- Further tuning for faster and more accurate predictions
- User Controls
- Graphical User Interface

Thank You!

Lorenzo Brown



github.com/lrnzbr/A_Cappella



lrnzbr@gmail.com



[linkedin.com/in/lorenzobrown](https://www.linkedin.com/in/lorenzobrown)



[@lrnzbr](https://twitter.com/lrnzbr)