Warblr

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What is Warblr?

- "Shazam for birdsong" Kickstarter Campaign

- Proof of concept app

- Built with Dan Stowel and Florence Wilkinson

What we did?

- UX

- Mobile app

- API

- Classifier server set-up

Classifier

- Uses machine learning scikit-learn

- Academic code

- First thing we did was get this running locally

Initial UI Protoyping

- Used POP https://popapp.in/

- Interact on the phone

- Low learning curve

- Fast iterations

Cordova Protoyping

- Holly Grail "write once run anywhere"

- Ionic: Cordova and Angular

- Poor support for phones hardwear

Xcode Protoyping

- We could record sound

- Used story boards and Objective C

- Surprisingly nice experience*

API

- JSON API written in Pyramid

- Postgres and s3 for storage

- Used DB as a message queue

Classifier Initial Set-up

- Very slow. 120 seconds

- Took a lot of memory and a massive server

- Supervisor used to keep the script running

Classifier Improved Set-up

- Fast. 5 seconds

- Ran on a small instance, using swap memory

- Supervisor alternative set-up

- Possible to run concurrently

Testing

1. Dev switches for App

2. Fake classifier for API

3. End to end YouTube bird videos

4. Field testing in Hyde Park with bird entusiasts

Thanks

Any questions?

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