Central Florida
Web Developers
User Group

"Give your JavaScript some Backbone"
February 1st, 2011

Aaron Greenlee
http://aarongreenlee.com

meetup.com/florida-web-developers

Why does this group exist?

The Central Florida Web Developers User Group's mission is the professional and personal development of our members through presentations, discussions and exercises that advance technical skills, use best practices, teach methodologies and attract opportunities to our members.

Founded June, 2009

Our Membership (Dec, 2010)

Meeting Organizers

Aaron Greenlee
http://aarongreenlee.com

Derek Winstead
http://derekwinstead.com

James Brown
http://coldfusioning.com

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Introducing our Sponsors

Special Sponsor this Month

Windows 7 Phone!

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We meet in Tampa, FL on the first
Tuesday of each Month.

http://gca.net/

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Adobe provides online access to everyone who lives in the cold tundra (not Florida).

Adobe also provides perks, prizes and more for our members. Contact an organizer for more!

http://tv.adobe.com/

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IvanovTech

Pizza Sponsor

Kris Ivanov
www.ivanovtech.com

Get Started!

About me

- Aaron Greenlee - aarongreenlee.com
- Web Development since 1997.
- Sr. Developer at *WRECKINBALL Media Group.* Most recently, I've contributed to tv.adobe.com, twondemand.com, Adobe CS5 launch and other projects.
- Expert in HTML/CSS, JavaScript and ColdFusion. Working knowledge of Ruby and C#
- Happily married to a high-school English teacher.
- Lived in So. California until work relocated me to Tampa, FL in 2008.
- I love providing a fantastic end-user experience and enjoy solving all the problems presented by the back end. *This is fun stuff!*

My goal is ...

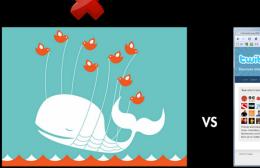*to produce quality.*

'quality'?

But what is *'quality'*?

- Quality is both objective and subjective.
- Objective quality:
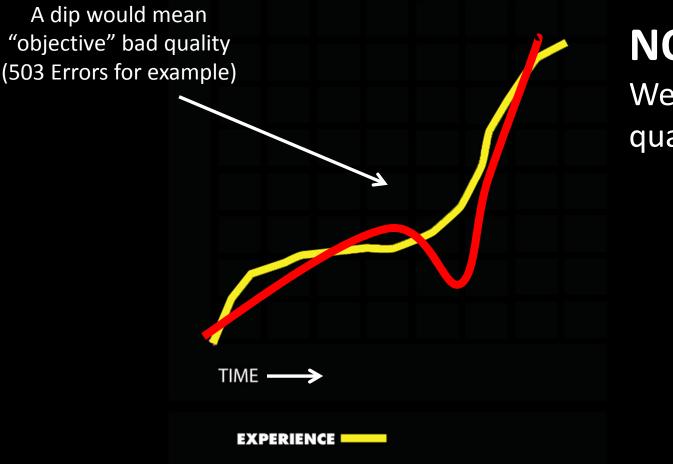
- Easy to define? Yeah.
    - It's broken (503 Error).   - It's obviously too slow.
    - The book has typos.   - The report is inaccurate.
- *I hope you already meet this level of quality. ☺. We're not improving this today.
- How can we define *subjective quality*?

I believe subjective quality to be…

- …the difference between expectations and results.
- …did you do what you said you would?
- …did you do it when you said you would?
- …this web site is slow!
- …my Toyota won't stop!
- *I hope you already meet this level of quality. ☺. We're not improving this today.
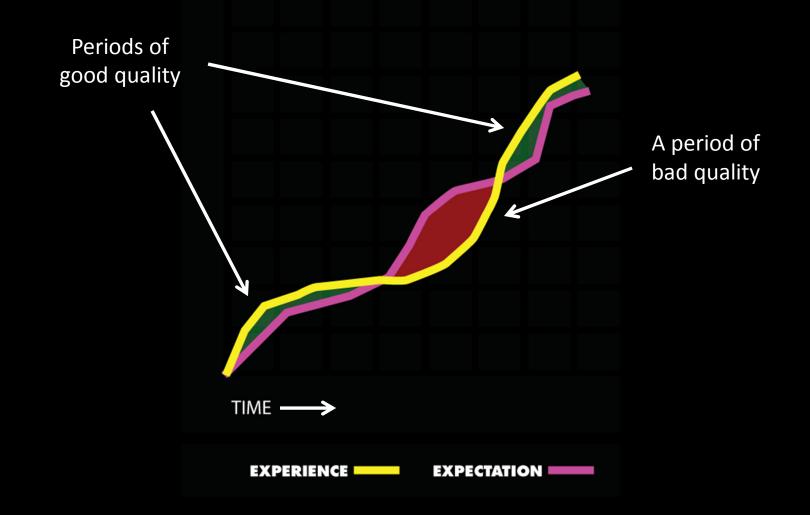
Delivered Experience Over Time

A dip would mean
"objective" bad quality
(503 Errors for example)
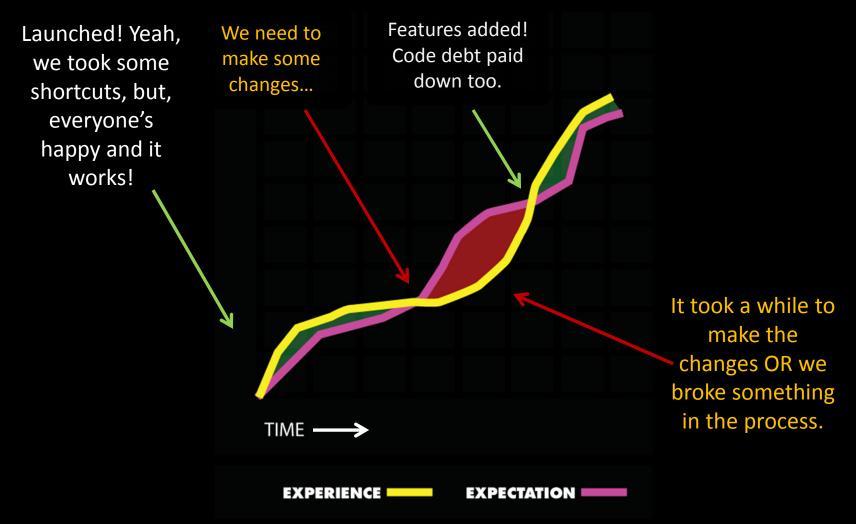
NO DIPS!
We have good
quality, right?

TIME →

EXPERIENCE ▬

Experience vs. Expectation Over Time

Periods of
good quality

A period of
bad quality

TIME →

EXPERIENCE ▬▬ EXPECTATION ▬▬

How did this happen?

Launched! Yeah, we took some shortcuts, but, everyone's happy and it works!

We need to make some changes...

Features added! Code debt paid down too.

It took a while to make the changes OR we broke something in the process.

TIME →

EXPERIENCE ▬▬   **EXPECTATION** ▬▬

Ok. Sure. But, how did this happen?

If you do not get the results you expect, there can ONLY be two reasons:

The person did not know.   The person did not care.

```javascript
$(document).ready(function(){
    /////////////// Episode List

    // Finder
    $("#finder .panel.cat ul li a").click(function(){
        $("#finder .panel.cat a.selected, #finder .panel.subcat ul.selected").removeC
        $(this).addClass("selected");
        $("#finder .panel.subcat > ul."+$(this).attr("href")).addClass("selected").fi
        getEpisodesByFinder();
        return false;
    });
    $("#finder .panel.subcat ul li a").click(function(){
        $("#finder .panel.subcat ul.selected a.selected").removeClass("selected");
        $(this).addClass("selected");
        //$("#finder .panel.subcat ul."+$(this).attr("href").substring(1)).addClass('

        // UPDATE ASSETS
        getEpisodesByFinder();
        return false;
    });
    $("#search input").keypress(function(){
        getEpisodesBySearch();
    });
});

function getEpisodesByFinder(){
    var reqData = {
        cat:$("#finder .panel.cat a.selected").attr("href"),
        subcat:$("#finder .panel.subcat ul.selected a.selected").attr("href")
    };
```

What goes with this?

Snooki!

Is there a better pair?

Yes, there is ☺

```
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```

???

Structure

Structure

Your Problem Is Not Unique

Patterns!

Human's love patterns!

What is Backbone?

What is Backbone?

- A well designed convention designed to provide structure to your JavaScript applications.
- also the central assembly of a ship
- a datacenter's connection
- A spinal Column
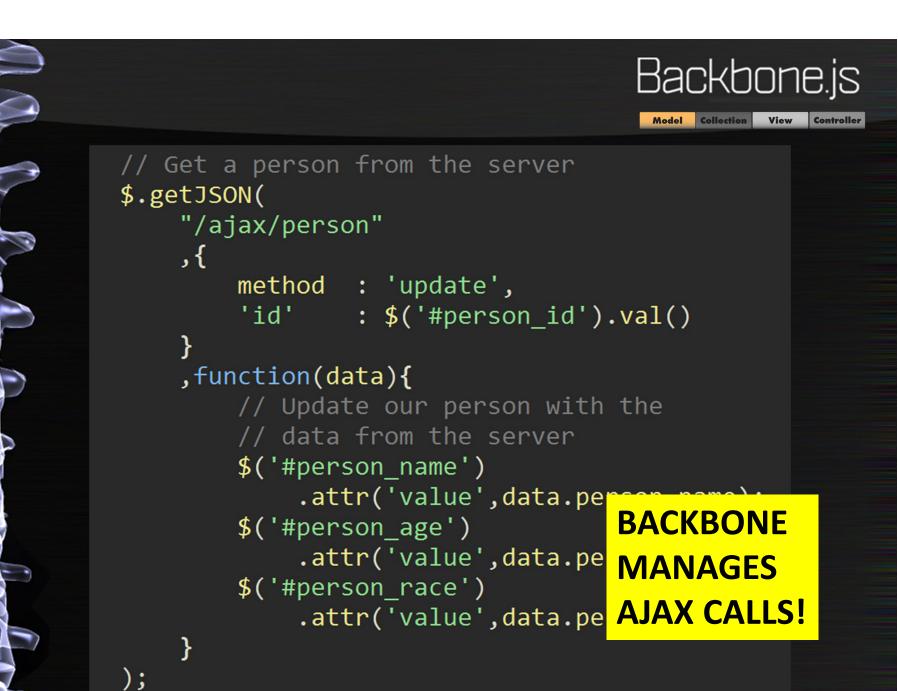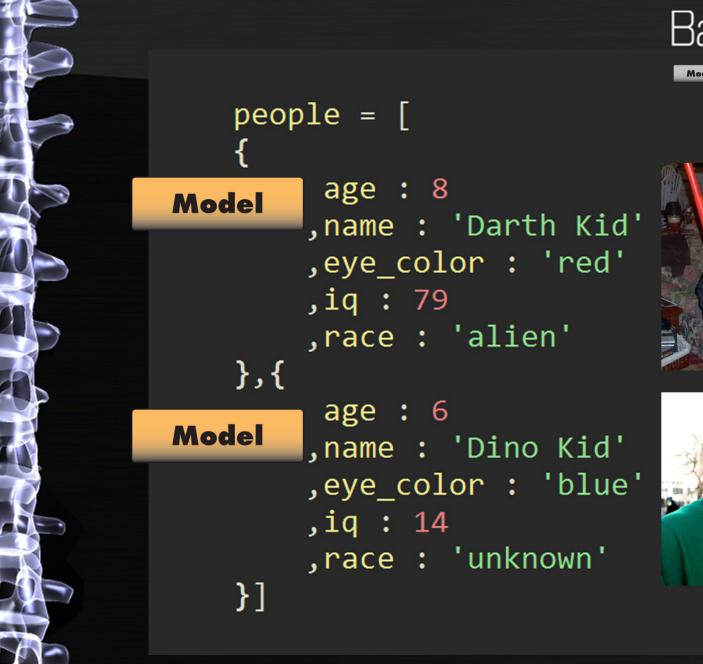
Is a thing

```
person = {
     age : 8
    ,name : 'Darth Kid'
    ,eye_color : 'red'
    ,iq : 79
    ,race : 'alien'
};
```

```javascript
// Get a person from the server
$.getJSON(
    "/ajax/person"
    ,{
        method  : 'update',
        'id'    : $('#person_id').val()
    }
    ,function(data){
        // Update our person with the
        // data from the server
        $('#person_name')
            .attr('value',data.person_name);
        $('#person_age')
            .attr('value',data.pe
        $('#person_race')
            .attr('value',data.pe
    }
);
```

BACKBONE MANAGES AJAX CALLS!

2/1/2011
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Backbone.js

Model | Collection | View | Controller

BACKBONE MANAGES STATE CHANGE

2/1/2011
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Impressed much?

Backbone.js

Model | Collection | View | Controller
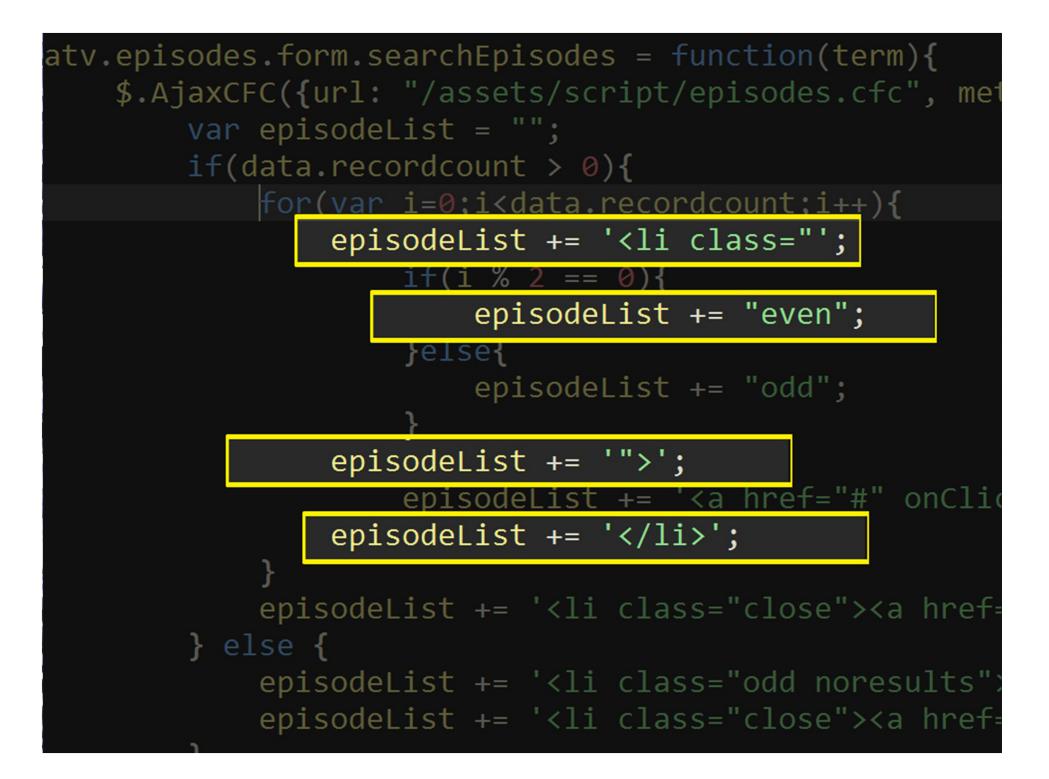
That's ok. The best part is next…

```
atv.episodes.form.searchEpisodes = function(term){
    $.AjaxCFC({url: "/assets/script/episodes.cfc", met
        var episodeList = "";
        if(data.recordcount > 0){
            for(var i=0;i<data.recordcount;i++){
                episodeList += '<li class="';
                    if(i % 2 == 0){
                        episodeList += "even";
                    }else{
                        episodeList += "odd";
                    }
                episodeList += '">';
                    episodeList += '<a href="#" onClic
                episodeList += '</li>';
            }
            episodeList += '<li class="close"><a href=
        } else {
            episodeList += '<li class="odd noresults">
            episodeList += '<li class="close"><a href=
```

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            }
            episodeList += '<li class="close"><a href=
        } else {
            episodeList += '<li class="odd noresults">
            episodeList += '<li class="close"><a href=
```

```
// BAM! jQuery Templates!
<li>${Name}</li>

// Apply even CSS class
$("#list li:even").addClass('even')
```
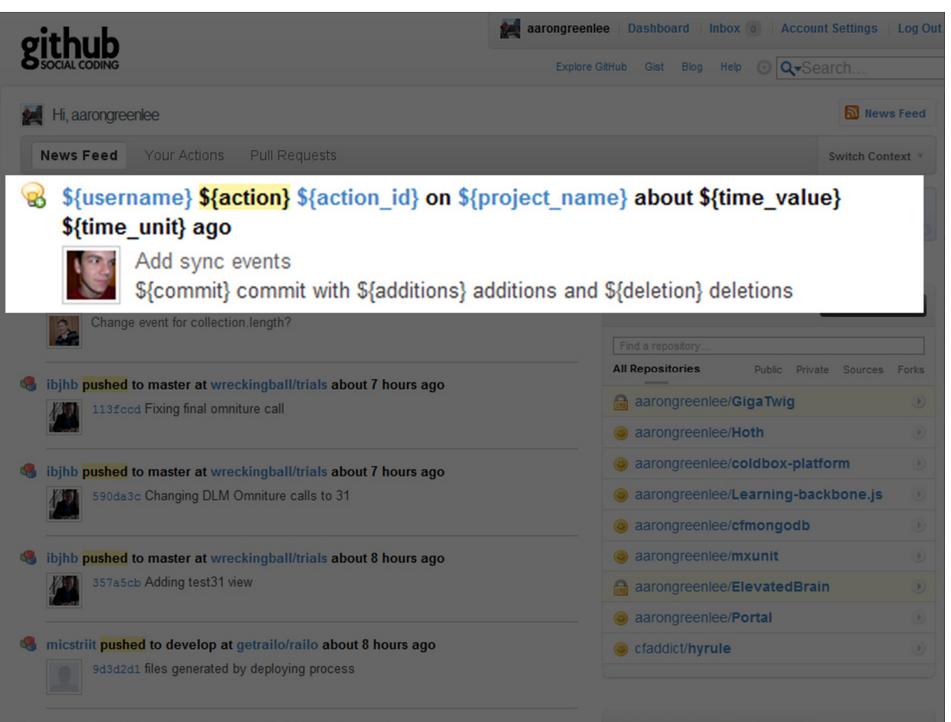
Hi, aarongreenlee

📶 News Feed

News Feed   Your Actions   Pull Requests

Switch Context ▼

---

josh **opened** **pull request 206** **on** **documentcloud/backbone** about 2 hours ago
> Add sync events
> 1 commit with 28 additions and 0 deletions

HenrikJoreteg **opened** issue 205 **on** **documentcloud/backbone** about 3 hours ago
> Change event for collection.length?

---

ibjhb **pushed** to master at **wreckingball/trials** about 7 hours ago
> 113fccd Fixing final omniture call

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> 357a5cb Adding test31 view

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---

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Find a repository...

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😊 aarongreenlee/**coldbox-platform**   ▸
😊 aarongreenlee/**Learning-backbone.js**   ▸
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${username} ${action} ${action_id} on ${project_name} about ${time_value} ${time_unit} ago

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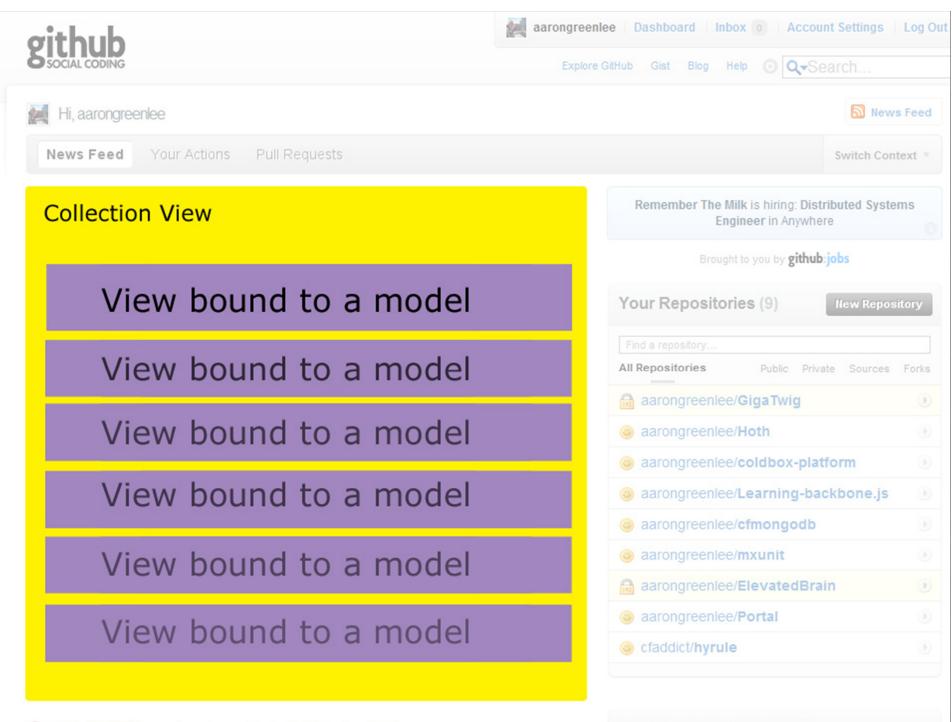aarongreenlee | Dashboard | Inbox 0 | Account Settings | Log Out

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Collection View

View bound to a model

View bound to a model

View bound to a model

View bound to a model

View bound to a model

View bound to a model

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Watched Repositories (11)

Controller

What happens when we click a link?

Who is responsible for putting it all together?

Backbone.js Example A

This example of backbone.js uses a single JavaScript application file. This is a great place to start as you learn Backbone.js.

Static content.
Many-to-one. Many models per view instance.
One-to-one. One model per view instance.

Document List

Bound to the DocumentCollection.
Log collection length.

- (#1) Example Document. Other documents will not make sense as they are randomly generated from a list of words.

- (#2) JSON providing (Random)

- (#7) events collections and (Random)

- (#3) interface binding with JSON (Random)

- (#6) structure structure all key-value a RESTful with (Random)

- (#4) to enumerable a API by (Random)

- (#5) your over models with a a functions (Random)

Document Detail

Bound to a individual Document. Click a document to to see the detail view.

Click a document from the list to the left to view it's detail

Aaron Greenlee | http://aarongreenlee.com/

Index.html

```html
<!doctype html>
<html lang="en" class="no-js">
<head>
    <meta charset="utf-8">
    <title>Greenlee's Backbone.JS Example</title>
    <link rel="stylesheet" href="cdn/c/style.css">
</head>
<body>
    <div id="pageWrapper">
        <div>
            <h1>Backbone.js Example A</h1>
            <p>
                This example of backbone.js uses a single JavaScript application
                file. This is a great place to start as you learn Backbone.js.
                <br>
                <strong>Example links</strong>
                <br>
                <a href="#reset">Reset Everything</a>
                | <a href="#step1">Step1</a>
                | <a href="#step2">Step2</a>
                | <a href="#step3">Step3</a>
            </p>
            <p>
                <strong>Static content.</strong>
                <br><span class="many-to-one p5">Many-to-one. Many models per view instance.</span>
                <br><span class="one-to-one">One-to-one. One model per view instance.</span>
            </p>
        </div>
        <div id="contentWrapper">
            <div id="container"></div>
        </div>
        <div id="footer">Aaron Greenlee | <a href="http://aarongreenlee.com/">http://aarongreenlee.com/</a></div>
    </div>
    <script type="text/javascript" src="cdn/j/lib.js"></script>
    <script type="text/javascript" src="cdn/j/app.js"></script>
</body>
</html>
```

Code Time

You can download this source code from
https://github.com/aarongreenlee/Learning-backbone.js

Detailed Blog post coming this week (not up yet)
http://aarongreenlee.com/share/backbone

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THANK YOU!

meetup.com/florida-web-developers