### Thanks to our Sponsors!









To connect to wireless

1. Choose Uguest in the wireless list

Open a browser. This will open a Uof U websit





3. Choose Login



Microsoft









# Client Side Frameworks

	Prohibitions	Authority	Founder	Texts
Christianity				
Judaism				
Islam				
Hinduism				
Shinto				
Buddhism				

#### Buddhism

- Lorem ipsum dolor sit amet, consectetur adipiscing elit.
- Praesent ullamcorper lectus euismod luctus feugiat.
- Mauris purus justo, ullamcorper et sapien eget, pellentesque cursus nulla.
- Suspendisse vitae ornare nulla.
- Etiam vel felis tristique, posuere nisl at, bibendum est.
- Nullam hendrerit urna est, et cursus nunc cursus in.
- Nam dictum eu nisi nec ornare.

# Get some milk Wash the dog Take a shower Prepare code camp session 2 items left All Active Completed Clear completed

http://todomvc.com/

### Vanilla JS

September 1995 by Brendan Eich backed by Netscape



Speed!



Smallest framework available



NOT an MVC framework, but everything you need to make one

► Code

### Backbone

- September 2010 by Jeremy Ashkenas backed by Document Cloud
- First of the frameworks



<u>Classes</u>



**Collections** 



Reusable Components

- Bindings between html and model
- Rendering of views



It's a JS world

### KnockoutJS

June 2010 by Steve Sanderson (Not Microsoft)



Two directional data binding



Declarative syntax in HTML



Observable pattern, even extending to computed values

### Angular

▶ January 2010 by Google. Super popular in early 2013



A whole application framework



**Dependency Injection** 



**Declarative templating** 



Two way binding with <u>no explicit notification system or special objects</u>



Components (aka <u>directives</u> invokes form <u>HTML</u>)

### Ember

April 2011 as an offshoot of SproutCore. Authored by Yehuda Katz.



Convention over configuration



Logic-less templates



Two directional data binding



**Declarative syntax** 



Components



Controller intermediates view and model

#### React

Made public on May 2013 by Facebook



UI only. The V in MVC



Virtual DOM & JSX



Components



One way data flow (From state to view, but not other way around)

#### Mithril

► March 2014 by Leo Horie



Small (5 Kb gzipped) and fast



Watches properties, not whole models



Virtual DOM



<u>Definitions aren't special</u>, <u>really</u>, <u>nothing</u>, <u>except routes</u>

## Polymer

- October 2012 by Google
- Widget Library using Material Design
- Components (<u>Called</u>, <u>Defined</u>)
- Element is the API (Try it)
  - Web Components
    - <link rel="import"/> Demo
    - Shadow DOM

#### **Future Frameworks**

- ► AngularJS 2.0
- **►**<u>Aurelia</u>

## Walk Aways

- ► Data binding is big
- Declarative is big
- ► Components are big