

AD1026

Front-end Development Advance Session 1: Introduction

Rex Chen @ 2011/11/21
Enterprise, Sr. Engineer



About Me



- * 2004 ~ ERA
- * 2005 ~ YAM
- * 2007 ~ Yahoo!
- * 2009 ~ Trend Micro

- * animal1004@hotmail.com

Self Introduction

1. what
2. why

What?

is the front-end engineer?

Web Master

User Interface
Engineer

FED

Front End Engineer

Web Developer

F2E

Front End Developer

Explain F2E in one sentence.

**The man who
tell browsers
what to Do.**

CSS

Javascript

HTML

Server Side Presentation Code

(PHP, JSP, ASP, Python, Ruby, .NET, et. al.)

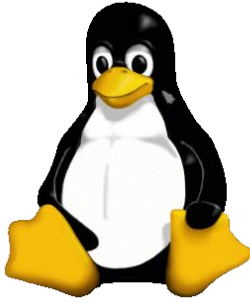
the “Back End”

Why?

we need front-end engineer?

**“Browsers are the most
hostile software engineering
environment possible”**

- Douglas Crockford



| Selector | IE 5-5 | IE 6 | IE 7 | IE8 | IE9 pr3 | FF 3.0 | FF 3-5 | FF 3.6 | FF 4b1 | Saf 4.0 Win | Saf 5.0 Win | Chrome 4 | Chrome 5 | Opera 10.10 | Opera 10.53 | Opera 10.60 | Konqueror 4.x |
|---|--------|--------|--------|-----|---------|--------|--------|--------|--------|-------------|-------------|----------|----------|-------------|-------------|-------------|---------------|
| * selector Selects all elements | yes | | | | | yes | | | | yes | | yes | | yes | | | to be tested |
| > selector Selects an element that is a child of another element | no | yes | | | | yes | | | | yes | | yes | | yes | | | to be tested |
| + selector Selects an element that is a next sibling of another element | no | static | almost | yes | | yes | | | | yes | | yes | | yes | | | to be tested |
| Static The browser doesn't correctly update the styles of the original element when another element is placed before it. <ul style="list-style-type: none">IE8 updates correctly, but only after you remove the focus from the test link. | | | | | | | | | | | | | | | | | |
| [attr] selector Selects an element with a certain attribute | no | yes | | | | yes | | | | yes | | yes | | yes | | | to be tested |
| Multiple classes Whether an element can support two or more class names | buggy | yes | | | | yes | | | | yes | | yes | | yes | | | to be tested |
| <ul style="list-style-type: none">IE6 and lower make a mistake; when confronted with <code>p.test.small</code> they act as if the selector is <code>p.small</code>. | | | | | | | | | | | | | | | | | |

**Your product need to
support what kind of
browsers.**

Where?

are the front-end engineers?



Google

The role: Front End Software Engineer

SAAS: software as a service

Do you want to help Google build next-generation web applications like GMail, Google Docs, Google Maps, and iGoogle? As a Front End Engineer at Google, you will specialize in building responsive and elegant web UIs with AJAX and similar technologies.

Minimum Qualifications:

bachelor of science 理學士

- BS degree in Computer Science or related field (In lieu of degree, 4 years relevant work experience).
- Development experience in server-side technologies such as C/C++ and/or Java.
- AJAX/HTML/CSS experience and an interest in user interface design.
- Web application development experience.

Google Web Toolkit

Preferred Qualifications:

- Masters or PhD in Computer Science or related field.
- Significant experience developing user-facing software.
- Experience working on cross-browser platforms.
- Knowledge of UI frameworks such as XUL, Flex, and XAML.
- Object-oriented JavaScript skills.

XML User Interface Language

WRITE BELOW LINE - FOR OFFICIAL USE ONLY

The Facebook Wall

Write Something...

The wall is covered in a dense layer of handwritten text, drawings, and stickers. Notable elements include:

- Stickers:** A Japanese flag sticker at the top center, a "NATE" portrait sticker on the right, and a "QR CODE" sticker in the lower right.
- Handwritten Text:** Phrases like "Bring back the OLD FACEBOOK WALL!!!", "PENNY IS AWESOME", "PRINCESS BRITANNY", "I WAS THERE", "I don't have a Facebook yet I'm not a Account", "LOVE MONTA", "HONESTY BOY", "GO BEARS", "landbook.com", "MICAH WAS HERE 1/31/11", "I don't know what I said a year ago!", "I'm not a Account", "I WAS THERE", "I don't have a Facebook yet I'm not a Account", "LOVE MONTA", "HONESTY BOY", "GO BEARS", "landbook.com", "MICAH WAS HERE 1/31/11", "I don't know what I said a year ago!", "I'm not a Account", "I WAS THERE", "I don't have a Facebook yet I'm not a Account".
- Drawings:** A large purple circle with a face, a drawing of a person's head, a drawing of a hand, and a drawing of a person's face.
- Other Markings:** A QR code, a drawing of a person's face, a drawing of a hand, and a drawing of a person's face.

User Interface Engineer Palo Alto, CA

職責

- Work with Product Designers and Software Engineers to implement the next generation of Facebook products
- Build efficient and reusable front-end abstractions and systems
- Identify and address performance bottlenecks
- Participate in design and code reviews
- Interact with other team members to incorporate their innovations and vice versa
- Identify and communicate best practices for front-end engineering

資格

- Expert knowledge of web technologies (HTML/CSS/JS)
- Experience with scripting languages (PHP, Python, Perl, etc.)
- Extremely detail oriented. Strives for pixel perfect implementation in all browsers
- Unmistakable passion for elegant and intuitive user interfaces
- Ability to write well-abstracted, reusable code for UI components
- Knowledge of but not reliant on Object Oriented JavaScript Frameworks (Prototype JS, MooTools, Dojo, etc.)
- Experience working with HTML/CSS/JS in high-performance environments
- Passion for performance debugging and benchmarking
- 3+ years of experience building web applications
- BS or MS degree in Computer Science or a related technical field



Interactive UI Engineer

We are looking for a UI Engineer that is responsible for implementing interactive, rich media projects within the iAd group. Candidates must be able to employ HTML5, CSS 3, and javascript to realize design comps and motion graphics and own the functionality all the way to quality assurance testing. You will interface with designers, producers and framework engineers in order to meet Apple's standard for visual perfection.

Responsibilities Overview

- Work under incredibly tight deadlines.
- Ability to learn from, leverage & contribute in documenting an in-house JavaScript library.
- Ability to use web standards to build solutions using semantic markup and CSS.
- Keep technically abreast of changes, advancements, and/or improvements and incorporate these improvements where applicable.

Education and Experience

- BS/BA or equivalent.
- 3+ years of experience working in UI and Web engineering.
- HTML5 (specifically media type tags), and CSS3 coding (specifically animation and webkit technologies).
- Strong communication, organization and time management/prioritization skills required.
- Competent JavaScript programmer who understands DOM manipulation.
- Aware of the interplay between JavaScript, HTML & CSS.

Preferred Experience

- Familiarity with Photoshop or similar visual design tools.
- Familiarity with Application Prototyping tools (ie Director or Flash).
- Comfortable with source version control software (CVS, SVN, Git).
- Some knowledge of Java server technologies (e.g. WebObjects) preferred by not required.



- Develop high-fidelity prototypes to accompany functional specifications and for executive buy-in demonstrations
- Collaborate with designers, researchers, and product managers to refine the user experience.
- Partner with engineering to ensure that interactive techniques and technologies translate through to shipping products and services.
- Develop for multiple devices, form factors, and capabilities including desktop, browser, phone, tablet and television.
- Identify and develop tools and services to support rapid prototyping and iterative design.
- Support a systems-thinking design approach to modularity and componentization.

Human-Computer Interface

Minimum Job Qualifications

- BA/BS in Computer Science, HCI, Design, or highly related field with 3-6 years experience as a key member of a design team participating in the complete product development lifecycle of web-based or software applications. If you have a Master's degree, you will have 0-3 years of experience.
- Exceptional HTML and CSS skills with a point of view on CSS architecture for complex projects.
- Significant experience with cross-browser issues, intimate familiarity with Web Standards up to and including HTML5 and CSS3, and an opinion on the distinction between graceful degradation and progressive enhancement.
- Strong JavaScript skills including knowledge and experience with Object Oriented JavaScript, Event-Driven Programming, Asynchronous Programming, JSON, and DOM Scripting. Experience with YUI and Mustache are nice to have.
- Passion for your craft, and excitement about creating products at massive global scale.
- Demonstrable communication and collaboration skills.

Happy Trender Club

| | |
|--|--|
| Design and implement the advanced web user interfaces and user experiences | Strong experience in CSS-driven HTML layouts development |
| Build our own UI components and libraries for different devices | Experience in DHTML (JavaScript 1.0-1.5, CSS, DOM Levels 0-2, HTML5/CSS3) |
| Quickly prototype new UI/UX and re-architect them for production | Experience and knowledge of AJAX concept which includes XMLHttpRequest, iframe, remote scripting, JSON & RESTful web services APIs, etc) |
| Take research projects for POC and work collaboratively to move them to engineering | Good knowledge of MVC frameworks, accessibility, device portability and optimization techniques (such as file size and rendering performance optimization) |
| Document code and system designs | Good knowledge of building multilingual or international web products |
| Develop deep expertise in multiple areas including web-based technologies, web monitoring and APIs. | Solid programming skill in JavaScript and familiar with at least one of jQuery, MooTools or YUI. |
| Play an active role and work with web developers, planner team, platform services team to implement web applications | Strong understanding of web standards and web-related technologies |
| Requirements | Must have understanding and experience with test-driven development |
| A strong understanding and command of web standards, W3C DOM methods and properties | Experience with version control system such as Git or SVN |
| Experience with cross-browser compatibility techniques & browser degradation strategies | Comfortable with Unix-like systems |



TREND
M I C R O

趨勢科技



Steve Chang
phy 6/8

網路安全軟體

PC-cillin™ 2011

雲端版

1
標準
年版
3台電腦

職務說明：

1. Software development for web front-end solution
2. Develop prototypes to demonstrate concepts and support research evaluation
3. New technology study, solution design, implementation, unit testing and trouble shooting

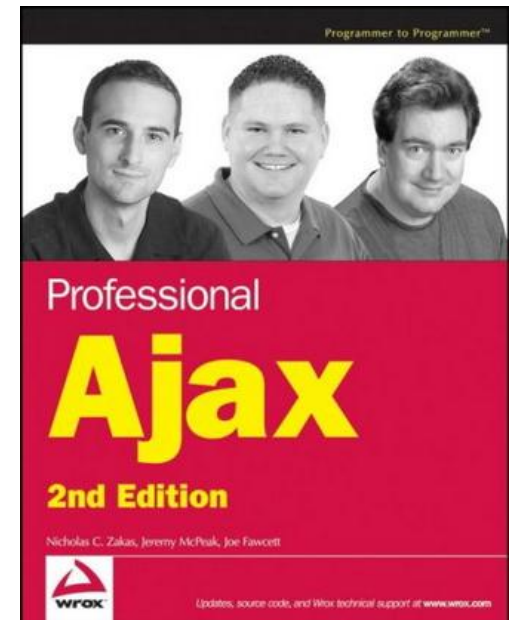


Who?

are good front-end engineers?



- <http://www.nczonline.net/>
- Owner at Nicholas C. Zakas Consulting
- Presentation Architect, Media Foundation at Yahoo!
- The contributor to the [Yahoo! User Interface \(YUI\) library](#)

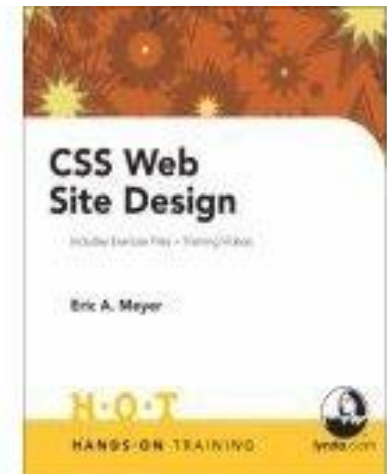
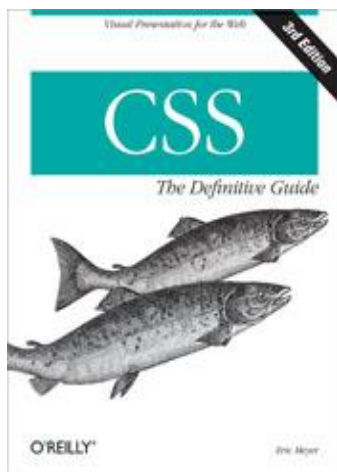




Eric Meyer

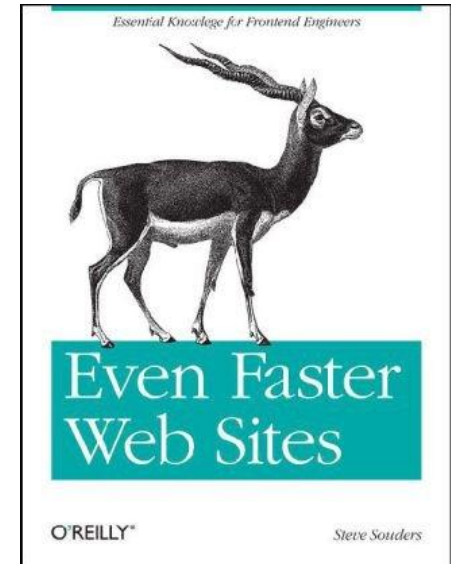
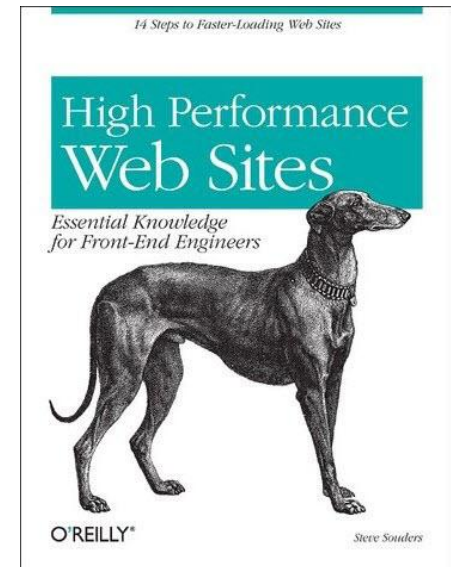
<http://meyerweb.com/S5> (Simple Standards-Based Slide Show System)

In 2008, Meyer supported a Microsoft proposal for Internet Explorer 8 related to backwards compatibility modes for rendering invalid HTML and other markup.[





- <http://stevesouders.com/>
- Head Performance Engineer @ Google
- The creator of [Yslow](#)
- The co-chair of [Velocity](#) conference
- He taught [CS193H: High Performance Web Sites](#) at Stanford University.



STAR WARS
EPISODE III
REVENGE OF THE SITH



MASTER YODA

Smiley Z



Douglas Crockford

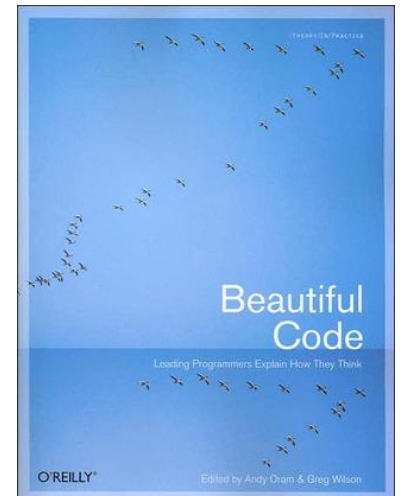
<http://www.crockford.com/>

Senior JavaScript architect @ Yahoo!

The author of [JSON](#), [JSLint](#), [JSMIn](#),
[ADSafe](#)

Reference:

<http://dancewithnet.com/2009/03/29/douglas-crockford/>



How?

to be a good front-end engineer?



Basic Knowledge

- * DOM structure
- * DOM manipulation
- * Events
- * XMLHttpRequest
- * Strict vs. quirks modes
- * The box model
- * Block vs. inline elements
- * Floating elements
- * HTML vs. XHTML
- * JSON

Advanced Knowledge

- * Sematic HTML
- * HTML 5
- * CSS Sprite
- * CSS Round Corner, Shadow, Gradient
- * Object-Oriented JavaScript Developments
- * Test-Driven JavaScript Development
- * Selenium
- * CI , Build Process



"Nothing great was ever achieved without enthusiasm."

Ralph Waldo Emerson

AD1026

Front-end Development Advance

Outline

| Date | Topic |
|-------|--------------|
| 11/21 | Introduction |
| 11/28 | HTML + CSS |
| 12/05 | Javascript |
| 12/12 | CI |
| 12/19 | Workshop |
| 12/26 | Workshop |

Goal

- * You will be able to produce a real Trend FED component.
- * Best practice of front end development of CI process.

Workshop

GIT

<https://github.com/>



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1,131,293 people hosting over 3,228,458 git repositories

jQuery, reddit, Sparkle, curl, Ruby on Rails, node.js, ClickToFlash, Erlang/OTP, CakePHP, Redis, and [many more](#)



git /'git/

Git is an extremely fast, efficient, distributed version control system ideal for the collaborative development of software.

git·hub /'git,hʌb/

GitHub is the best way to collaborate with others. Fork, send pull requests and manage all your **public** and **private** git repositories.

Plans, Pricing and Signup

Unlimited public repositories are **free!**

Free public repositories, collaborator management, issue tracking, wikis, downloads, code review, graphs and much more...



Plans & Pricing

Join today and collaborate with the smartest developers in the world.

\$0/mo

Free for open source

Unlimited public repositories and **unlimited** public collaborators

Create a free account

Create your free personal account

Username



Email Address



We promise we won't share your email with anyone.

Password



Must contain one lowercase letter, one number, and be at least 7 characters long

Confirm Password

By clicking on "Create an account" below, you are agreeing to the [Terms of Service](#) and the [Privacy Policy](#).

Create an account

Install GIT

<http://git-scm.com/>

Set Up Git

If you've found yourself on this page, we're assuming you're brand new to Git and GitHub. This guide will walk you through the basics and explain a little bit about how everything works along the way.

This is the guide for setting up git in **OSX**. There are also guides for **Windows** and **Linux**.

First: Download and Install Git

At the heart of GitHub is an open source version control system (VCS) called Git*. Created by the same dudes that created Linux, Git is responsible for everything GitHub related that happens locally on your computer.

**If you don't already know what Git is, [take a crash course](#).*

1. Download and install [the latest version of Git](#).

Note Don't worry that you don't see an icon when it's done. It's not that kind of application.

Give me your Account

Collaborators

<https://docs.google.com/spreadsheet/ccc?key=0AnGRLwAVgptxdEgEOW5zYmoydlRBtXR1dIJncnhRUmc>

<https://github.com/TrendFED/TrendFED/admin/collaboration>

Set up GIT

Guide

<http://help.github.com/win-set-up-git/>

<http://help.github.com/mac-set-up-git/>

Clone TrendFED

```
git clone git@github.com:TrendFED/TrendFED.git
```


mkdir \$Your_Name
touch \$Your_Name/README

git add \$Your_Name
git commit -m "first commit"
git remote add origin [git@github.com:TrendFED/TrendFED.git](https://github.com/TrendFED/TrendFED.git)
git push origin master

git clone

複製一份新的repository

git add + commit

在自己的repository做一筆變更

git pull/push

讓自己與其他的repository做merge


Homework

To write some code.



- ★
- Dashboard
- Managment
- Endpoints
- Services
- Logs
- Reports
- Updates
- Administration

Add current page to Favorites

★ Scan Now for All Domain 

★ Update Sever Now



- ★
- Dashboard
- Managment
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What's New

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http://tw-hiesrv.tw.trendnet.org/uiwww/segment/01_enterprise/tmcm/6.0/layout03/nav/nav_01_02.png

http://tw-hiesrv.tw.trendnet.org/uiwww/segment/01_enterprise/tmcm/6.0/layout03/nav/nav_help.png



**Commit before
2011/11/28 00:00**