Build your own browser extension

Enhancing twitter profiles with the FullContact API

Enhanced twitter profile

Key Components

- FullContact API

- Manifest.json

- Background page

- Options page

- Content Scripts

```
▼ 📁 extension
    🌐 background.html
    ▼ 📁 css
        📄 main.css
        📄 options.css
    ▼ 📁 images
        🖼 fullcontact_32.png
        🖼 fullcontact_48.png
        🖼 fullcontact_64.png
        🖼 fullcontact_128.png
        🖼 fullcontact_logo.png
        🖼 loading.gif
    ▼ 📁 js
        📄 background.js
        📄 jquery.js
        📄 main.js
        📄 options.js
    📄 manifest.json
    🌐 options.html
  📄 README.md
```
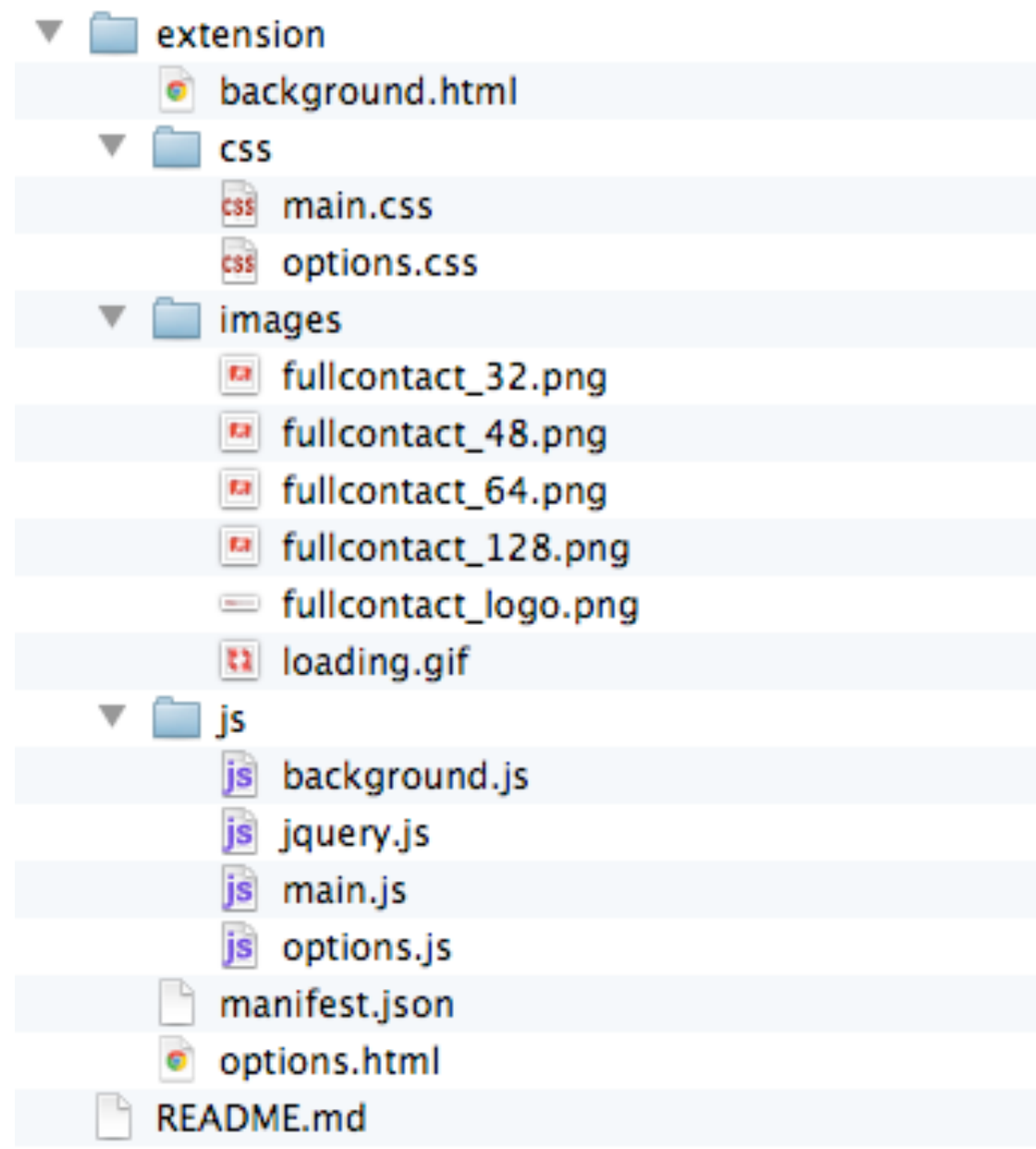
FullContact API

Lookup by Twitter

Use the person method to request more information about a specific person by **twitter**.

Requests

version
twitter

```
https://api.fullcontact.com/v2/person.json?twitter=lorangb&apiKey=xxxx
```

method
your key

http://developer.fullcontact.com/documentation/?category=person

curl -D - https://api.fullcontact.com/v2/person.json?
twitter=kurtharriger&apiKey=$FULLCONTACT_APIKEY

Manifest.json

- Background Page

- Browser Actions

- Options Page

- Content Scripts

- Permissions

```json
{
  "name": "FullContact for Twitter",
  "version": "1.0",
  "description": "FullContact for Twitter Chrome Plugin",
  "browser_action": {
    "default_icon": "images/fullcontact_32.png",
    "popup": "options.html"
  },
  "icons":
  {
      "128": "images/fullcontact_128.png",
      "64": "images/fullcontact_64.png",
      "48": "images/fullcontact_48.png",
      "32": "images/fullcontact_32.png"
  },
  "permissions": [
    "https://api.fullcontact.com/*"
  ],
  "background_page": "background.html",
  "options_page": "options.html",
  "content_scripts": [
    {
      "matches": ["https://*.twitter.com/*"],
      "css": ["css/main.css"],
      "js": ["js/jquery.js", "js/main.js"]
    }
  ]
}
```

Background Page

```html
<html>
<head>
    <script src="js/jquery.js" type="text/javascript"></script>
    <script src="js/background.js" type="text/javascript"></script>
</head>
</html>
```

Background Page

```
function getFullContactProfile(request, sendResponse) {

    ...

}


function requestHandler(request, sender, sendResponse) {

    ...

}

chrome.extension.onRequest.addListener(requestHandler);
chrome.extension.onRequestExternal.addListener(requestHandler);
```

Background Page

```javascript
function getFullContactProfile(request, sendResponse) {
    var apiKey = localStorage['fullcontact_apikey'];
    if(apiKey) {
        var url = 'https://api.fullcontact.com/v2/person.html';
        $.get(url, {'twitter': request.username, 'apiKey': apiKey})
         .complete(function(jqXHR) {
           if(jqXHR.status == 202) {
               setTimeout(function() { getFullContactProfile(request, sendResponse); }, 1000);
           }
           else {
               var data = {'status':jqXHR.status, 'responseText': jqXHR.responseText};
               sendResponse(data);
           }
        });
    }
    else {
        sendResponse({'status': 'apikey not set'});
    }
}
```

Background Page

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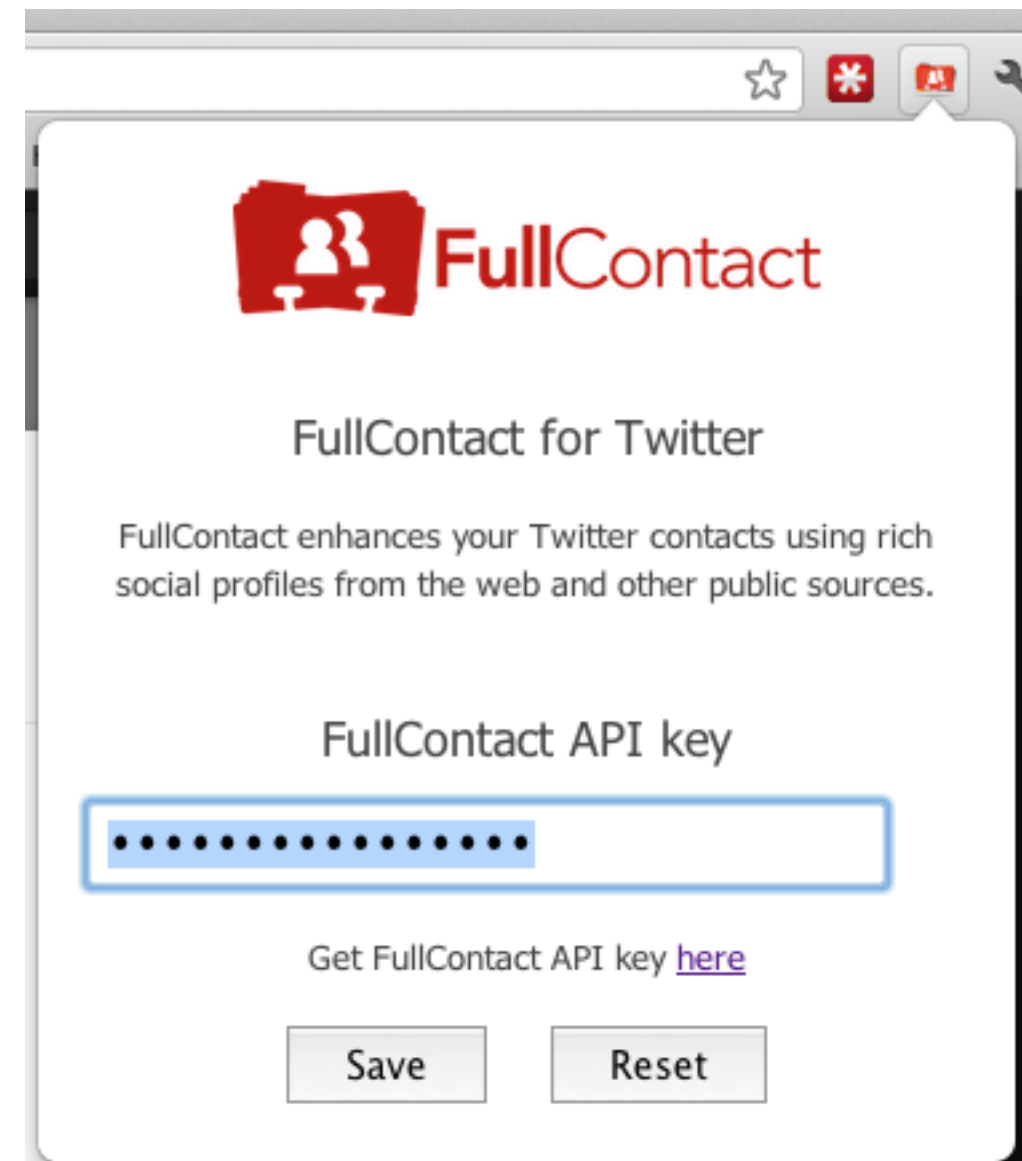
Background Page

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           }
        });
    }
    else {
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    }
}
```

Options Page

```html
<html>
  <head>
    <title>FullContact API Key</title>
    <script type="text/javascript" src="js/jquery.js"></script>
    <script type="text/javascript" src="js/options.js"></script>
    <link rel="stylesheet" type="text/css" href="css/options.css"></link>
  </head>
  <body>
    <img class="fullcontact_logo"/>
    <h2>FullContact for Twitter</h2>
    <p>
      FullContact enhances your Twitter contacts using rich social
      profiles from the web and other public sources.
    </p>

    <h2>FullContact API key</h2>
    <input type="password" id="fullcontact_apikey" val="" />
    <p>
      Get FullContact API key <a href="http://fullcontact.com/getkey/"
                      target="_blank">here</a>
    </p>
    <div>
      <button class="save">Save</button>
      <button class="reset">Reset</button>
      <p class="status"></p>
    </div>
  </body>
</html>
```

Content Scripts

- Read and modify host page DOM

- Can register event handlers

- Isolated JavaScript Execution Environment

- May need to poll for DOM changes

PRO TIP:

To debug content scripts insert a "debugger;" statement into your javascript file. Chrome will display a javascript console within the javascript extensions execution context.

```
$(document).ready(function () {

    function add_indicator_to_stream() { ... }
    function extend_profile_dialog() { ... }

    function update_ui() {
        add_indicator_to_stream();
        extend_profile_dialog();
    }

    setInterval(update_ui, 1000);
});
```

Content Scripts

```
function getFullContactProfile(username, callback) { ... }
function rate_limit_exceeded(username, callback) { ... }
 function add_indicator_to_stream() {
    $(".stream-item-header").each(function () {
       if (!$(this).find('.fullcontact_info').length) {
          var username = $(this).find('.username').text();
          var data = fullcontact[username];
          if (!data) {
             getFullContactProfile(username, update_ui);
          } else {
             if (data.status == 200) {
                $('<img/>')
                   .addClass('fullcontact_info')
                   .prependTo(this);
             } else {
                if (data.status == 403) {
                   rate_limit_exceeded();
                }
             }
          }
       }
    });
 }
```

Content Scripts

```
function getFullContactProfile(username, callback) { ... }
function extend_profile_dialog() {
    if ($('.profile-modal').length
        && !$('.profile-modal .fullcontact-profile-container').length) {

        var username = $('.profile-modal .js-screen-name ').text();
        getFullContactProfile(username, function (data) {
            if (data.status == 200) {
                var container = $('<div>')
                    .addClass('fullcontact-profile-container')
                    .insertBefore('.profile-modal .social-proof');

                var contactInfo = $(data.responseText);
                contactInfo.appendTo(container);
                $('.twttr-dialog-container, .twttr-dialog-content').width('700px');
            }
        });
    }
}
```

Content Scripts

```javascript
var fullcontact = {};

function getFullContactProfile(username, callback) {
    if (fullcontact[username]) {
        callback(fullcontact[username]);
    } else {
        fullcontact[username] = {};
        chrome.extension.sendRequest({
            'method': 'getFullContactProfile',
            'username': username
        }, function (data) {
            fullcontact[username] = data;
            callback(data);
        });
    }
}
```

Key Components

- FullContact API
- Manifest.json
- Background page
- Options page
- Content Scripts

- Social Data
- Extension Meta Data
- Core Functionality
- Configuration
- Extend third party page

Why stop here?

https://github.com/fullcontact/FullContact-Twitter-Extension

- Enhance other social web sites?

- Or, ALL WEB SITES via pattern matching?

- GMAIL (e.g. Mingly)?

- Enhance your internal CRM system?

- Or build a better one... (e.g. Contactually)

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