

# Caleb Madrigal

- caleb.madrigal@gmail.com
- 414-215-0003
- Milwaukee, WI
- <http://calebmadrigal.com>
- <https://github.com/calebmadrigal>
- [https://twitter.com/caleb\\_madrigal](https://twitter.com/caleb_madrigal)
- <https://www.linkedin.com/in/calebmadrigal>

## Skills

- Strong communicator (speaker and writer)
- Languages/Platforms:
  - Python (Flask, Django, IPython Notebook/Jupyter, NumPy, SciPy, Matplotlib, Gunicorn)
  - Javascript (Node.js, React.js, AngularJS, Express.js, Underscore.js, Lodash.js, Async.js, jQuery)
  - Objective-C (iOS, Cocoa)
  - C# .NET (ASP.NET, MVC4, NHibernate, Spring.NET)
  - Java EE (GWT, JSF, Spring, Hibernate)
  - C (gcc, sockets, linux, makefile)
- Databases:
  - MySQL
  - MongoDB
  - MS SQL
  - PostgreSQL
  - IBM DB2
  - Sqlite
- Version Control:
  - Git
  - SVN
- Other Tools:
  - Docker
  - Vagrant
  - VirtualBox
  - VMWare Fusion/Workstation
  - Visual Studio
  - IntelliJ
  - PyCharm
  - WebStorm
- Strong algorithms and mathematics knowledge.
- Big proponent of functional programming.
- Linux Server configuration: Nginx, Apache, Gunicorn, Supervisor, Upstart, iptables, sendmail, cron
- Strong working knowledge of Cryptography and Security
- Agile/Scrum practitioner

## Experience

### SpiderLogic

Software Consultant, *March 2011 - Present*

**Client: Wisconsin Lawyers Mutual Insurance Company, 2013-2015**

- *Technologies:* Node.js, Express.js, AngularJS, MongoDB, Java, SOAP, Oracle
- Lead a small team to create a web portal for a legacy enterprise Java policy administration system. This portal was implemented as a Single-page App backed by a RESTful API, which is backed by Node.js, Express.js, and MongoDB.

**Client: Hewins Financial, 2013-2015**

- *Technologies:* Java EE, Google Web Toolkit, MySQL, Linux, Python
- Created a web app which enables financial advisors to rapidly model their clients' financial outlook and walk them through various scenarios.
- Made an offline version by wrapping the server software in a VM, and wrote a protection layer around it with Python.

**Client: MyHealthDirect, 2012-2013**

- *Technologies:* C# .NET, ASP MVC4 .NET, Spring, NHibernate, MS SQL, Objective-C
- Wrote Medical scheduling web app
- Wrote Medical scheduling iPad app
- Wrote an ETL tool to transform client-provided data files into a format our DB could handle
- Helped maintain large enterprise API and web app

**Client: Wipfli (Internal Development), 2012**

- *Technologies:* Objective-C
- Wrote insurance risk analysis iPad app

**Client: SoZo Group, Wipfli (Joint Venture), 2012**

- *Technologies:* Javascript, HTML5, CSS3, Joomla CMS, PHP, Linux
- Created web informational portal to provide help to Chinese companies looking to move operations to the US
- Website: <https://chinausportal.com/index.php/en/>

**Client: ScenarioNow, 2011-2012**

- *Technologies:* Java EE, Google Web Toolkit, MySQL, Linux
- Wrote financial modeling software for financial advisors

**Client: Church Mutual Insurance Company, 2011**

- *Technologies:* Java EE, Spring, Hibernate, JSF, IBM DB2
- Wrote Java EE application to manage actuarial statistics for Insurance Rating Software

## **Astronautics Corporation of America**

**Software Engineer, June 2008 - March 2011**

- Wrote software in the C programming language for the Airbus A400M Network Server System (NSS).
- Developed several APIs based on requirements which I gathered from multiple teams.
- Developed company-wide Python coding standard and gave training presentations on Python.

- Wrote a hardware emulator in Python for use in our labs.
- Wrote Software design documents which used UML diagrams to communicate software module design and interactions.
- Authored the Software Requirements Document for one of the components for the NSS in IBM Rational Doors (requirements tracking software).
- Wrote Test Cases, Test Procedures, and Test Applications (in C and Python) to verify requirements.
- Followed DO-178B for process flow, requirements, testing, implementation, etc.

## **Hitcents**

### **Software Engineer, *August 2006 - May 2008***

- Developing an Enterprise Resource Planning (ERP) system.
- Desktop front-end to ERP in C# .NET/XAML/WPF
- Integrated Microsoft Office with ERP system.
- Wrote socket-level communication system for both the server-side and front-end of ERP.
- Wrote web software for ERP system using Perl, Javascript, CSS, and HTML.
- Developed access control software that uses Radio Frequency Identification (RFID).
- Certified RFID specialist at Hitcents.

## **Teksouth**

### **Programming Summer Intern, *May 2005 - August 2005***

- Wrote a program that controlled the magnetic front door lock, using MS Outlook calendar as a front end for scheduling.

## **Side Projects**

### **Home Security System**

- For fun and security, I built a home security and automation system
- Hardware: RaspberryPi, hacked remote controlled outlet set, hacked magnetic sensor
- Software: Python, Flask, jQuery Mobile

### **Other Side projects**

- See <http://calebmadrigan.com> for more side projects.

## **Speaking**

### **O'Reilly Open Source Convention (OSCON) 2013**

#### **Topic: Sound Analysis with the Fourier Transform and Python**

- [Presentation Notes](#)

### **Milwaukee Barcamp 2011**

#### **Topic: Using Transparent HTTP Proxies for Live Web Traffic Manipulation**

- [Code used](#)

## Education

### **Bachelor's in Computer Science - Western Kentucky University**

- GPA: 3.80 on a 4.0 scale (Graduated May 2008)
- ACM President of WKU local chapter (2007-2008)
- Future Leader Award in Computer Science (2008)
- President's Scholar at WKU (2007-2008)