# Caleb Madrigal - Software Engineer

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## Skills

* Languages/Platforms/Technologies:
  + Hardcore Pythonista (Django, Flask, numpy, scipy, ipython, matplotlib, Gunicorn)
  + Objective-C (iOS, Cocoa)
  + C# .NET (ASP.NET, MVC4, NHibernate Spring)
  + Java EE (JSF, Spring, Hibernate)
  + Javascript (AngularJS, jQuery, UnderscoreJS, KnockoutJS, REST)
  + C (gcc, sockets, linux, makefile)
* Databases:
  + MySQL
  + MS SQL
  + IBM DB2
  + Sqlite
* Version Control:
  + Git
  + SVN
* Very strong communicator (speaker and blogger)
* Linux Server configuration (Nginx, Apache, Gunicorn, Supervisord, iptables, sendmail)
* Good understanding of Cryptography and Security
* Preferred development methodology: Agile/Scrum

## Experience

### SpiderLogic

#### Software Consultant, *March 2011 - Present*

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

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

##### Client: MHD, 2012-2013

* *Technologies:* C# .NET, ASP MVC4 .NET, Spring, NHibernate, MS SQL, Objective-C
* Wrote Medical scheduling web app
* Wrote Medical scheduling iPad app
* Helped maintain large enterprise API and web app.

##### Client: SoZo Group, Wipfli (Joint Venture)

* *Technologies:* Joomla CMS, PHP, Linux, Javascript, CSS
* 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: CMIC, 2011

* *Technoligies:* 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.
* Addressed customer questions about our software and documentation.
* 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.

## Speaking

### O’Reilly Open Source Convention (OSCON) 2013

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

* [Presentation Notes](https://github.com/calebmadrigal/FourierTalkOSCON)

### Milwaukee Barcamp 2011

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

* [Code used](https://github.com/calebmadrigal/PythonScripts/blob/master/networking/httpproxyserver.py)

## Education

### Bachlor’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)