

# Vivian G. Brown

Berkeley, CA • [vivian.brown@gmail.com](mailto:vivian.brown@gmail.com)

Portfolio: [vivianbrown.appspot.com](http://vivianbrown.appspot.com) • GitHub: [github.com/vbrown608](https://github.com/vbrown608)

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## SUMMARY

Drupal/PHP developer at Quilted cooperative. Designed and built web applications in Python, JavaScript/JQuery/D3, HTML5 and CSS3. Wrote and published widely read research on Agile software development and user experience delivery. Conducted research using applied predictive analysis and machine learning techniques on bioacoustic data.

## EDUCATION

**Pomona College**, Claremont, CA 2007-2011

**Bachelor of Arts in Cognitive Science**

**Minor in Computer Science**

**Cum Laude**, GPA 3.81/4.00

Undergraduate thesis in machine translation

- Identified features of simple sentences based on models of linguistic complexity
- Working in Java, re-ranked the output of a probabilistic phrase-based translation model using a support vector machine re-ranker to improve machine translation

## PERSONAL PROJECTS

**Open Disclosure Oakland** ([opendisclosure.io](http://opendisclosure.io))

- Volunteer project as part of Code for America's Oakland Brigade
- Visual design, interaction design, and development of interactive visualizations of campaign finance data
- Fully responsive design implemented in CSS, JavaScript, and D3
- Map-based visualization of geospatial data

**MetaTicTacToe** ([metatictactoe.appspot.com](http://metatictactoe.appspot.com))

- Visual design, interaction design, and development of browser-based strategy game
- Backend in Python on Google App Engine, GQL, Google Channel API, webapp2 framework, Jinja2 templating
- Frontend in JavaScript, JQuery, HTML5, CSS3
- Implemented adversarial search using negamax algorithm with alpha-beta pruning

**CSA Match** (code at [github.com/vbrown608/csa-match](https://github.com/vbrown608/csa-match))

- Backend in Python on Google App Engine, GQL, Google Channel API, webapp2 framework, Jinja2 templating
- Map-based visualization of geospatial data using Google Maps JavaScript API v3
- Implemented geospatial search of CSA records using Google Search API

## PROFESSIONAL EXPERIENCE

**Developer and Candidate Worker/Owner** Quilted (June 2014-present)

- Web development in Drupal with custom PHP development
- Fully responsive front-end development using JavaScript and Sass
- Lead developer on two client projects
- Major contributor on five client projects, following an Agile process with significant pair programming
- Behavior-driven development using Behat and Selenium and git version control on all projects
- Database experience in MySQL and MongoDB
- Implemented subscription-based payment processing using Stripe API
- Participation in consensus-based decision-making process working towards business co-ownership

**IT Researcher/Analyst** Forrester Research (October 2012-present)

- Wrote syndicated research on Agile software development, requirements definition, cloud platforms, and predictive analytics tools for senior application development leaders in Fortune 500 IT organizations
- Automated team processes in Visual Basic and JavaScript/Google App Script including integration with Salesforce via OAuth2

- Worked on 3,000+ respondent surveys including survey design, data cuts and analysis, and creation of figures for publication in Adobe Illustrator
- Awarded “Best Research Award” Q3 2012 and “Most Courageous Research Award” Q3 2013
- Promoted to Senior Research Associate after twelve months, then promoted to Researcher after five months

**Machine Learning Research Assistant** to Dr. Xiaoli Fern, Oregon State University (Summer 2010)

- Working in C++, applied predictive analysis and machine learning techniques to bioacoustic data
- Contributed to a shared code base on a five-person team
- Collected, read, and summarized research on bioacoustic data analysis with focus on random forest algorithm
- Summarized results in a written report and presented at the Grace Hopper Conference for Women in Computing

**Web Administrator** Department of Cognitive Science and Linguistics, Pomona College (2010-2011)

- Worked with faculty and staff to update the content and design of department website
- Using HTML and CSS, updated navigation system, restructured faculty profiles, and posted regular updates

**Computer Science Teaching Assistant** Department of Computer Science, Pomona College (2010-2011)

- TA for “Fundamentals of Computer Science” and “Data Structures” courses
- Facilitated programming labs and held weekly office hours to assist with assignments in Java, C++, and SML