

## Professional Experience

Google.org, San Francisco, CA Feb 2014 - till present

### **Technology Portfolio Manager.**

CSEd Specialist, co-leading non-profit investment in Computer Science Education, helping entrepreneurs launch new solutions to old problems at scale.

UniversityNow, San Francisco, CA June 2012 - August 2012

### **Software Engineer Intern**

Semantic Data Scientist. Led a team to design and create a data analytics console to improve business intelligence and illuminate how students are progressing on the learning platform.

TEDxEuclidAve Berkeley, CA August 2011 - August 2012

### **Founder and Curator**

Led the planning of [TEDxEuclidAve](#) 100+ member conference, bringing together innovative thinkers across technology, design and entertainment in service of social entrepreneurship.

Miller Dental Health, Inc. Memphis, TN June 2004 - December 2009

### **Consultant**

Aided the development of Dentist recruitment strategies. Responsible for branding of business including marketing and operations.

Thoughtware Learning Technologies, Inc. Memphis, TN August 1999 - November 2001

### **Software Engineer**

Contributed to the development of Internet based workforce development management system.

## Honors

Levo 100 [Honoree](#)

Bloomberg Beta [Future Founder](#).

Co-Founder, [#ThisIsGrit](#), winning hackathon project for the “White House + Dept of Ed.”

Selected Interviewee, 2014 PBS [Teach Roadtrip Nation](#).

Kapor Capital Fellow.

Selected Attendee, TEDxSummit, Qatar.

SESAME Graduate Division Fellowship, UC Berkeley.

Herff College of Engineering fellowship, University of Memphis August 2002 - May 2006.

## Consulting Projects

Google Inc, San Francisco, CA 2015

### **Content Developer**

Challenge:

Help students acquire computational thinking skills for a massive open on-line course.

Solution:

- Create explicit mental-models to communicate computation ideas via verbal and non-verbal materials.
- [Built](#) Android For All [Vocabulary Glossary](#) for [Android Development for Beginners course](#) in partnership with [Udacity](#).

Results:

Over 50,000 students enrolled.

Computer Science Education in Media at Google, San Francisco, CA 2015

### **Strategist** *Founding member*

Challenge:

Increase participation rates of women and ethnic-minorities in Computer Science.

Solution:

Leverage media to evangelize Computer Science. Consult with Hollywood to help get CS into their story lines and build awareness.

Results:

- [Miles from Tomorrowland](#)
- ABC Familys [The Fosters](#), more examples on request.

Press:

- USA Today  
[Google helps Hollywood boost girls-who-code image](#)
- NBC Bay Area  
[Google Puts Girl Coders in Hollywood](#)
- Tech Republic  
[Media portrayals of women in tech: Google joins non-profits to drive change](#)
- Washington Post  
[Google, NASA work together on Disney show to inspire girls into sciences](#)
- LA Times  
[Google hopes Disney's 'Miles From Tomorrowland' inspires future coders](#)
- Indie Wire  
['The Next MacGyver' Winners Usher In Hope For A New Generation of Female Engineers](#)

Presidential Innovation Fellows, The White House, Washington, DC 2012

**Strategist**, Served in volunteer capacity with CTO of the United States, Todd Park

Challenge:

Diversify the applicant pool for the [Presidential Innovation Fellows](#).

Solution:

Expose opportunity to premium minority serving communities. Create a separate strategy to reach female candidates.

Results:

President Obama signed an [executive order](#) making the fellowship a permanent part of government. Read [acknowledgment](#) from founding member of the team.

## Education

University of California at Berkeley. Berkeley, California

**Doctoral Degree** in Computer Science Education (SESAME)

August 2010 - Dec 2015

University of Memphis. Memphis, Tennessee

**Master of Science** in Electrical Engineering: Focus in Computer Science and Intelligent Systems

Jan 2002 - August 2004

University of Memphis. Memphis, Tennessee

**Bachelor of Science** in Computer Science August

1997 August 2001

## Research Experience

The University of California, Berkeley

**Graduate Student Researcher**

[HipHopathy](#), January 2012 - Present

Designing an innovative approach to Data Science as a means of broadening participation in Computing. The goal of the HipHopathy project is to marry natural language processing, data, and conceptual metaphor theory to gain delightful insights into cognition. (Advisor: Alice Agogino, Dan Garcia)

The International Computer Science Institute

**Graduate Student Researcher**

[MetaNet](#), February 2011 - December 2013

Co-designed and implemented a Semantic MediaWiki System to capture and model conceptual metaphors that can be queried to derive additional knowledge in English. This

framework was then applied to other languages including Spanish, Farsi and Russian. (Advisor: Srini Narayanan)

The University of California, Berkeley

**Graduate Student Researcher**

[CARES](#), June 2010 - December 2010

Assisted in the design and actualization of innovation workshop on user needs assessment for renewable energy of eco-friendly homes for the Pinoleville Pomo Indian nation, Ukiah, CA. Co-Design of educational workshop to teach the basics of renewable energies to Pomo youth. (Advisor: Alice Agogino)

The University of Memphis

**Graduate Student Researcher**

[Data Visualization in High School Pedagogy](#), January 2005 - May 2006

Research funded by the National Science Foundation for the creation of an interdisciplinary workshop for requirements elicitation, design, and development of multidimensional visualization tools for recruitment of high school students in the fields of engineering, physics, math, and computer science. Assisted with curriculum development for Data Visualization course. Committee advisor for Data Visualization group. (Advisor: David Russomanno)

The University of Memphis

**Graduate Student Researcher**

Center for Advance Sensors, August 2004 - May 2006

Co-created the Web 3.0 Semantic Web Ontology Language (OWL) Sensor ontology OntoSensor. Developed ontology-based architecture for sensor discovery and query. The first of its kind to be created on the Semantic Web. It is used by the Department of Defense and had immediate application to military intelligence. (Advisor: David Russomanno)

The University of Memphis

**Graduate Student Researcher**

Semantic Web Expert System (SWEXSYS), August 2003 - August 2004

Created and developed the SWEXSYS expert system engine using SWI-Prolog; a semi-autonomous system that is used as a decision support system for the identification of potentially hostile environments based on sensor data. (Advisor: David Russomanno)

## Teaching Experience

The University of California, Berkeley Berkeley, California.

**Graduate Student Instructor**

Cog Sci 1, Introduction to Cognitive Science. Spring 2013

CS 9F, Introduction to C++ Programming. Spring 2011

The University of Memphis Memphis, Tennessee.

**Adjunct Faculty**

EECE 1207 - Introduction to C Programming. Fall 2009, Spring 2010

The University of Memphis Memphis, Tennessee.

### Teaching Assistant

EECE 3220, Computer Software Engineering. Spring 2006

EECE(COMP) 4/6731, Data Visualization. Spring 2005, Fall 2005

EECE 1208, Introduction to Computer Engineer Lab. Fall 2003, Spring 2004

## Publications

**O. Miller** (2014) [Its Deeper than Rap, Toward Culturally Responsive CS](#), XRDS: Cross-roads, The ACM Magazine for Students, New York, NY, pp. 28-30.

**O. Miller** (2013) [Winning with Both Sides of the Coin](#), Coding Nation Report, Kapor Center for Social Impact, Oakland CA, pp. 6-7.

D. J. Russomanno, C. Kothari and **O. Thomas**<sup>1 2</sup> (2005) [Building a Sensor Ontology: A Practical Approach Leveraging ISO and OGC Models](#), The 2005 International Conference on Artificial Intelligence, Las Vegas, NV, pp. 637-643.

D. J. Russomanno, C. Kothari and **O. Thomas** (2005) [Sensor Ontologies: from Shallow to Deep Models](#), Proceedings of the 37th Southeastern Symposium on Systems Theory, IEEE Press, Tuskegee, AL, pp. 107-112.

**O. Thomas** and D. J. Russomanno (2005) [Applying the Semantic Web Expert System Shell to Sensor Fusion using Dempster-Shafer Theory](#), Proceedings of the 37th Southeastern Symposium on Systems Theory, IEEE Press, Tuskegee, AL, pp. 11-14.

**O. A. Thomas** and D. J. Russomanno (2004) [SWEXSYS: A Semantic Web Expert System Shell](#), Proceedings of the IASTED International Conference on Artificial Intelligence and Applications, part of the 23rd Multi-Conference on Applied Informatics, Innsbruck, Austria, pp. 240-245.

**O. Thomas** (2004) [Semantic Web Expert System \(SWEXSYS\) Shell](#). Master's thesis, University of Memphis, Tennessee. Print.

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<sup>1</sup>I previously published under the name Omoju Thomas

<sup>2</sup>Most cited article in the area of sensor ontology as of October, 2015.