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# OMOJU THOMAS MILLER

Ex-GitHub | Ex-Google | White House Influencer | UC Berkeley Ph.D.

**profession experience**

Fimio - Founder and CEO                                          Oakland, CA | June 2022-Present
- Bringing trust to the trustless web.

GitHub - Technical Advisor to CEO                     San Francisco, CA | Feb 2020-Feb 2021
- Led Technical Research and Tiger Team projects..
- Provided technical input, working with product teams to understand and define technical issues, brief the executive, leadership team and stakeholders as needed.

GitHub - Senior Data Scientist, Machine Learning     San Francisco, CA | July 2017-Present
- Works on applied machine learning to optimize software development lifecycle on GitHub.
- Co-Developed Discovery Dashboard Recommendation Engine.
- Attained a click-through rate of 20%.

Insight Data Science - Data Science Fellow            Palo Alto, CA | Jan 2017-Jun 2017
- Built a large-scale hierarchical classification model for a YC backed management service company.
- Scaled solution to accommodate growing taxonomy of item categories.

UC Berkeley - CSEd Doctoral Candidate                Berkeley, CA | Dec 2013-May 2016
- Designed a machine learning, research study to investigate gender in intro CS.
- Developed a data science unit within a historical intro CS course, CS10.

Google - Technology Portfolio Manager              Mountain View, CA | Feb 2014-Dec 2015
- Co-led a $15M CSEd portfolio. Grew the portfolio by 25%.
- Co-led the development of vocabulary glossary for Android Development course.

ICSI[1] - Graduate Researcher                         Berkeley, CA | Mar 2011-Dec 2012
- Built a conceptual metaphor Semantic Wiki capable of ingesting data in English, and Farsi.
- Contributed to the design of conceptual metaphor framework.

UniversityNow - Data Scientist (Intern)              San Francisco, CA | Jun 2012 -Aug 2012
- Led a 3 person team responsible for creating an analytics console.
- Pulled and integrated data from two separate database management systems.

TEDxEuclidAve - Founder and Curator                  Berkeley, CA | Aug 2011-Aug 2012
- Led a 10 person team responsible for executing on the vision.
- Led strategy for TEDxEuclidAve, a 100+ member conference, bringing together innovative thinkers across technology, design and entertainment in service of social entrepreneurship.

Center for Advanced Sensors - Graduate Researcher    Memphis, TN | Aug 2003-Nov 2006
- Co-designed OntoSensor, a sensor ontology using Semantic Web Ontology Language (OWL).
- Built an intelligent reasoning agent capable of reasoning with data in XML and RDF formats

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[1]International Computer Science Institute

Thoughtware Learning Technologies - Software Engr  Memphis, TN | Aug 1999-Nov 2001
- Contributed to the development of an AI eLearning workforce development platform.
- Quality assurance for an eLearning management system.

UC Berkeley - Computer Science Education, Ph.D.                          2016
University of Memphis - Electrical and Computer Engineering, M.S.        2004
University of Memphis - Computer Science, B.S.                           2001

**teaching experience**

Metis Data Science - Instructor                    San Francisco, CA | Fall 2017
- Introduction to Data Science
UC Berkeley - Graduate Student Instructor               Berkeley, CA | Spring 2013
- Introduction to Cognitive Science
UC Berkeley - Graduate Student Instructor               Berkeley, CA | Spring 2011
- Introduction to C++ programming
University of Memphis - Adjunct Faculty               Memphis, TN | Spring 2010
- C programming for Engineers
University of Memphis - Graduate Student Instructor    Memphis, TN | Spring 2006
- Computer Software Engineering
University of Memphis - Graduate Student Instructor    Memphis, TN | Spring 2005
- Data Visualization
University of Memphis - Graduate Student Instructor    Memphis, TN | Spring 2004
- Introduction to Computer Engineer Lab

**publications**

Conference proceedings

Omoju Miller. 2016. "Gaining Insights into the Effects of Culturally Responsive Curriculum on Historically Underrepresented Students' Desire for Computer Science." Proceedings of the 123rd ASEE Annual Conference, New Orleans, LA.

D.J. Russomanno, C. Kothari and O. Thomas. 2005. "Building a Sensor Ontology: A Practical Approach Leveraging ISO and OGC Models." The 2005 International Conference on Artificial Intelligence, Las Vegas, NV 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 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. 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 240–245.

Workshops and Presentations

Omoju Miller. 2017. "An introduction to Bagging Models." Demystifying Deep Learning and AI, Noroff, Oslo.

Jennifer Arguello, Tiffany Price, Alexis Martin, Frieda McAlear, Omoju Miller, Dan Garcia. 2015. "Engaging Underrepresented Youth in Computer Science." Computer Science Teachers Association (CSTA) in Grapevine, TX.

Omoju Miller. 2015. "Towards a Global Framework for Culturally Resonant Learning." 2015 Sage Assembly in Paris, France.

Omoju Miller and Oluwole Solana. 2014. "From San Francisco to Johannesburg, introducing girls to Computer Science in Industry supported programs." 2014 Grace Hopper Conference in Pheonix, AZ.

Daniel D Garcia, Brian Harvey, Tiffany Barnes, Dan Armendariz, Jon McKinsey, Zachary MacHardy, Omoju Miller, Barry Peddycord III, Eugene Lemon, Sean Morris, Josh Paley. 2014. "AP CS Principles and the Beauty and Joy of Computing Curriculum." Proceedings of the 45th ACM Technical Symposium on Computer Science Education, 746–746.

Brian Harvey, Daniel D Garcia, Tiffany Barnes, Nathaniel Titterton, Omoju Miller, Dan Armendariz, Jon McKinsey, Zachary Machardy, Eugene Lemon, Sean Morris, Josh Paley. 2014. "Snap!(Build your own Blocks)." Proceedings of the 45th ACM Technical Symposium on Computer Science Education, 749–749.

Omoju Miller, Jordan Arnesen, Eric Chu, Grayson Flood, Kevin Funkhouser, Alex Greenspan, Daniel Hsu. 2013. "Hiphopathy: A Computational Thinking Process to Encourage Empathy." 2013 California Cognitive Science Conference, Berkeley, CA.

Essays and reviews

Frieda McAlear, Omoju Miller, Dan Garcia, Alexis Martin. 2016. "Equity in Computer Science: From Exposure to Entrepreneurship." Computer Science Teacher's Association (CSTA) Voice, 9–10.

Omoju Miller. 2014. "Its Deeper than Rap, Toward Culturally Responsive CS." XRDS: Crossroads, The ACM Magazine for Students, 28–30.

Omoju Miller. 2013. "Winning with Both Sides of the Coin." Coding Nation Report 6–7.

**selected conference presentations since 2012**

Keynote, "Cognitive Apprenticeship - Experience in Open Source, Linux Conference Australia - Linux.conf.au, January, 2021.

Speaker, "Science in the Age of Data: Accelerating Human Progress." JupyterCon, October, 2020.

Keynote, "Africa - The Next Frontier." DLD Munich, Munich, January, 2020.

Speaker, "Why is machine learning seeing exponential growth in its communities?" O'Reilly TensorFlow World, Santa Clara, October, 2019.

Speaker, "AI at the Frontier: A Global Viewpoint." Fortune Brainstorm Tech, July, 2019.

Keynote, "A new vision for the global brain: Deep learning with people instead of machines." O'Reilly Velocity Conf, London, October 2018.

Speaker, "Opening Keynote - GitHub Universe." GitHub Universe, San Francisco, October 2018.

Speaker, "Building Data Products at GitHub." Pluralsight Live, Utah, August 2018.

Fireside Chat, Nairobi Women in Machine Learning. Nairobi, Kenya, June 2018.

Presenter, "All The Cool Kids, How Do They Fit In? Popularity and Demographic Biases in Recommender Evaluation and Effectiveness." Papers We Love - San Francisco, California, April 2018.

Keynote panelist "Data Science: Past, Present, Future ." DataEngConf, California, April 2018.

Speaker "On learning AI: The Myth of Innate Ability in Tech." TEDxSanFrancisco, California, October 2017.

Speaker "On learning AI: The myth of innate ability in tech." Data Institute, California, October 2017.

Panelist "Black Work, Black Wealth, Black Futures." Data For Black Lives, MIT, Massachusetts, November 2017.

Speaker "What Makes a Coder." Etsy, New York, February 2017.

Panelist "Moral Machines: How Philosophy can help AI Decide Right from Wrong." Grace Hopper Celebration of Women in Computing, Texas, October 2016.

Keynote "15+ Years of Learning Computational Intelligence." Annual OUSD Dinner with a Scientist, California, May 2016.

Panelist "SPIE Women in Optics." SPIE Photonics West Annual Conference, California, February 2016.

Speaker "Breaking Barriers: Changing the Landscape." Andela, Lagos, Nigeria, January 2016.

Panelist "Behind the Click: Intersection of Women of Color in STEM and Social Justice." Black Girls Code, California, December 2015.

Keynote "Moonshot Thinking." Joint Board of Advisors Meeting, Purdue School of Engineering and Technology, IUPUI, Indiana, October 2015.

Keynote "Breaking Barriers: Changing the Landscape." Youth Start Up Weekend at Castlemont High School, California, May 2015.

Speaker, "Breaking Barriers: Changing the Landscape." Office of Institutional Diversity, Harvey Mudd College, California, December 2014.

Keynote, "Inventing the Mythical Creature: Or How to Stay, Lead, and Delight in Tech as a Woman." Annual Celebration of the IU Center of Excellence for Women in Technology (CEWiT), Indiana, October 2014.

Speaker, "Made With Code." Annual Dreamforce Developer's Conference, Callifornia, October 2014.

Speaker, "Inventing the Mythical Creature: Or How to Stay, Lead, and Delight in Tech as a Woman." Focus 100, New York, September 2014.

Presenter, "#ThisIsGrit." White House Department of Education EdDataPalooza, Washington DC, January 2014.

Speaker, "Unintended Bias." Departmental Heads Gathering, White House, Washington DC, February 2013.

Panelist, "Social Justice in the Age of Big Data." Swinging and Flowing: Inclusion and Diversity in the Age of Data. The Data and Democracy Initiative @ CITRIS Berkeley, Berkeley, April 2012.

**grants, honors, & awards**

Member (Expert Network: AI), World Economic Forum, Davos, Switzerland, March 2017.

Bloomberg Beta Future Founder, Bloomberg Beta, California, 2014.

Winner, White House Dept of Edu EdDataPalooza, Washington DC, January 2014

Kapor Capital Fellows, California, 2012.

SESAME Graduate Division Fellowship, UC Berkeley, 2010–2011

Herff College of Engineering fellowship, Memphis, 2002–2006.

**press, podcast, & coverage**

The Business Journal, Startups to Watch: Fimio wants to help you trust crypto and Web3. January, 2023.

TWIML Podcast, #313, Machine Learning at GitHub with Omoju Miller. October, 2019.

DeepLearning.AI, Working AI: At the Office with Senior MLE Omoju Miller. August, 2019.

Fortune, Africa Is Tech's Next Great Frontier, Github A.I. Expert Says. July, 2019.

Venture Beat, GitHub wants AI to help developers code. October, 2018.

Harvard Business Review, What Data Scientists Really Do, According to 35 Data Scientists. August, 2018.

DataFramed Podcast, #29, Machine Learning & Data Science at Github (with Omoju Miller). July, 2018.

The Observer, Berkeley PhD's 4-Step Plan to a STEM Pipeline That Works for Everyone. February 16, 2017.

Stack Overflow Podcast , #91, Can You Stump Nick Craver?. October 2016.

Science with Tom parody rap video, Everybody's Got Questions (Yup). May 2016.

JavaScript Air Podcast, The Science of People in Tech. May, 2016.

HBCU to Startup Podcast, Learners Guild, Investing in You to Code. March, 2016.

The Hanselman Minutes Podcast: Fresh Air for Developers, Redesigning Computer Science 101 Education with Omoju Miller. August, 2015.

Pivot TV, RoadTrip Nation: Omoju's Open Road. March, 2015.

#BITTechTalk, African Americans on the role of Higher Education in Innovation. December, 2014.

NPR's All Tech Considered, Fortune-Tellers, Step Aside: Big Data Looks For Future Entrepreneurs. October 5, 2014.

Berkeley Bytes, Q&A with CS Ed Reformer and PhD Candidate Omoju Miller. March 11, 2014.