

Raquel A. Romano, Ph.D.
romano@alum.mit.edu
www.linkedin.com/in/romano

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I enjoy leading engineering teams with a strong sense of mission. My experience (20+yrs) ranges from startup to large company to nonprofit to government. I particularly enjoy shaping company strategy and amplifying individual and team impact by helping people understand how their work fits into the big picture.

Experience

[Fora](#), Nov 2021-present

- **Senior Director of Engineering**, Oct 2022- present
Fora is creating new experiences for our millions of users across 1000+ communities for niche hobbies. I currently lead 3 teams: our product team, which is helping people discover products for their hobbies with expert advice from member enthusiasts, our product data team, which is extracting and ranking products and product discussions from forum content, and our forum team, which is refreshing the UI to make organic community conversations easier to navigate and contribute to.
- **Principal Software Engineer**, Apr 2022-Oct 2022
After Threadloom was acquired, I helped integrate our product data pipelines into native experiences in Fora's community forums.

[Threadloom](#), Dec 2016-Nov 2021

- **Chief Technology Officer**, Apr 2021-Apr 2022
Threadloom was a startup that built search services and newsletters for online forums and built new experiences for users to discover high-quality expert discussions about niche hobbies. As CTO, I led Threadloom in the [acquisition](#) of Threadloom by our largest customer.
- **Principal Software Engineer**, Mar 2018-Apr 2021
I built pipelines and services to analyze, combine, and rank tens of thousands of daily posts in online forums and Reddit communities to deliver interest feeds for users to browse discussions and products discussed by enthusiasts. I also helped build backends and services for product discussion search within a given interest ("best X for Y") and to support a Chrome extension showing shoppers on retail product pages what enthusiasts are saying about products (Python, Scala, Flask, Apache Beam).
- **Software Developer / Independent Contractor**, Dec 2016-Feb 2017
I built a pipeline to analyze and rank recent forum threads, posts, and users for a prototype newsletter of top discussions in Threadloom's partner online community forums (Python, Apache Spark).

[U.S. Digital Service](#), May 2016-Feb 2017

- The United States Digital Service is a team of tech professionals who join the federal government to bring best industry practices to bear on critical public-facing services across multiple agencies.
- **Engineering Lead**, Aug 2017-Feb 2018
In my year at the [Digital Service at the US Department of Veterans Affairs](#), I contributed to and then led an engineering team in a multi-year effort to deliver all digital services to Veterans from a

single platform that was later launched on [va.gov](#). I indirectly led a team of ~40 in-house and contract developers and collaborated across engineering, product, design, and stakeholders to replace legacy Veteran-facing applications with our open-source, responsive, accessible [web application](#) and [API](#) and integrate them with a vast array of legacy VA backend systems ([blog post](#)).

- **Front End Software Developer**, Feb 2017-Aug 2017

I helped build the front end for education benefits and refactored the front end login code (React/Redux).

- **Digital Services Expert**, May 2016 - August 2016

I took a leave from Google to spend 3 months at the Department of State defining an MVP to improve how we deliver prospective immigrants timely and actionable information about the status and next steps in their visa applications.

[Google](#), Mar 2007-Oct 2016

- **Senior Software Engineer**, Mar 2010-Oct 2016

Accessibility Engineering Team: I helped build [Google Accessibility Scanner](#), an Android app that examines the view hierarchy of any Android application and provides developers, product managers, and QA testers suggestions for how to improve the accessibility of the application.

Google.org Engineering Team: I helped build [Google Crisis Map](#), a tool for people affected by natural disasters to view critical information before, during, and immediately after the event. I also contributed to [Google Person Finder](#) and [Google Flu Trends](#) (Python, JavaScript, Django, CSS, C++).

- **Technology Lead**, [Google.org](#), May 2014-Dec 2015

I stepped away from engineering for a while to join the Google.org team to evaluate the technical feasibility and impact of grant proposals from nonprofit organizations taking innovative approaches in various sectors, like [serving users with disabilities](#). I also led an internal effort to incubate high-impact engineering projects within Google to transform how technology can serve people with disabilities.

- **Software Engineer**, Mar 2007-Mar 2010

[Google Street View](#): I implemented machine learning and computer vision algorithms to detect text in panoramas for large-scale privacy protection (C++).

[Google Books](#): I trained a convolutional neural network for Arabic and Indic language optical character recognition and integrated it into the [Tesseract OCR engine](#) (C++).

[Lawrence Berkeley National Laboratory](#), [Computational Research Division](#), **Postdoctoral Researcher**,

Jan 2004–Mar 2007

I collaborated with multiple research groups to apply statistical learning and data mining to various scientific domains: I implemented supervised learning algorithms to identify candidate supernovae in astronomical survey imagery; I developed a tool used by molecular biologists to detect evidence of radiation-induced DNA damage in microscopy imagery; I built a feature detector to locate tropical cyclones in high-resolution spatiotemporal climate simulations. (C++)

[TECHsperience](#), **Developer**, Aug 2002-Oct 2003

I was the lead developer and product manager for custom web applications we built for nonprofit and government organizations, e.g., health clinics, schools, and county service agencies.

[MIT Artificial Intelligence Laboratory](#), [Computer Vision Group](#), **Research Assistant**, Sep 1996-May 2002

I developed a novel projective model to constrain matching image points in multiple 2D views of a 3D scene and implemented nonlinear optimization algorithms to estimate 3D camera poses from sparse correspondences. I also collaborated on research in statistical video analysis, camera self-calibration, and recovery of 3D structure and motion. Advisors: Eric Grimson and Olivier Faugeras.

[MIT Center for Biological & Computational Learning](#), **Research Assistant**, Jan 1994-Aug 1996

I built a real-time face verification system to authenticate users by matching image-based features from captured images to a library of known face images. Advisor: Tomaso Poggio.

[INRIA: French National Institute for Research in Computer Science](#), ROBOTVIS Group, **Research Assistant**, Jun 1999

I developed continuous, differential models of 3-view projective constraints on matching image points. Advisor: Olivier Faugeras.

[IBM T.J. Watson Research Center](#), **Research Intern**, Jun-Aug 1996

I developed a method to combine multiple biometric measurements (fingerprint models and image-based face models) and demonstrated improved identification accuracy.

[AT&T Bell Laboratories](#), **Research Intern**, Jun-Aug 1993

I analyzed the search space and convergence properties of random, greedy algorithms for solving NP-complete problems.

Education

Massachusetts Institute of Technology, Cambridge, MA

Doctor of Philosophy in Computer Science, June 2002

Ph.D. Thesis: Projective Minimal Analysis of Camera Geometry. AT&T Laboratories Fellow.

Massachusetts Institute of Technology, Cambridge, MA

Master of Science in Computer Science, August 1995

M.S. Thesis: Real-Time Face Verification

Harvard University, Cambridge, MA

Bachelor of Arts in Mathematics, June 1992

Cum Laude General Studies. Radcliffe College National Scholar. National Merit Scholar. Study Abroad: Budapest Semesters in Mathematics, Budapest, Hungary.

Speaking Engagements

[Tech Culture Contradictions: Confessions from a Stereotype-Threatened Engineer](#), Tech by Superwomen (TSWS18), 2018.

[Redefining Inclusion: Technology as an Act of Service](#), Plenary Talk, Tapia Celebration of Diversity in Computing, 2016.

[Technology During Natural Disasters](#), Women Techmakers Summit, Google for Developers, 2014.

[How Can Crisis Maps Meet Information Needs of Affected People?](#) Lightning Talk, International Conference on Crisis Mapping (ICCM), 2013.

[Pursuing Professional Changes](#) (with Alice Bonhomme-Biais), Special Issue on Gender Diversity in Computing, IEEE Computer Magazine, v. 46, no. 3, March 2013.

Other selected speaking engagements: OpenAir15 AirBnb Developer Conference (2015), Latin@s in Tech Summit at SxSW (2015), [CRA-W Graduate Cohort Workshop](#) (2010-2012), [Grace Hopper Celebration for Women in Computing](#) (many talks and panels over various years).

Publications

["Supernova Recognition using Support Vector Machines,"](#) R. Romano, C. Aragon, and C. Ding, International Conference of Machine Learning Applications, December 14-16, 2006.

["Towards Direct Simulation of Future Tropical Cyclone Statistics in a High Resolution Global Atmospheric Model,"](#) Michael F. Wehner, G. Bala, Phillip Duffy, Arthur A. Mirin, and Raquel Romano, Advances in Meteorology, vol. 2010, Article ID 915303, 13 pages, 2010.
doi:10.1155/2010/915303

["Imaging features that discriminate between high and low LET radiation-induced foci in human fibroblasts,"](#) Costes, S. V., A. Boissière, S. Ravani, R. Romano, B. Parvin and M. H. Barcellos-Hoff., Radiat Res, 165 (5): 505-515, May 2006.

["Monitoring Activities from Multiple Video Streams: Establishing a Common Coordinate Frame,"](#) L. Lee, R. Romano, and G. Stein, IEEE Transactions on Pattern Recognition and Machine Intelligence, Special Section on Video Surveillance and Monitoring, Vol. 22, No. 8, August 2000.

"Forest of sensors: Using adaptive tracking to classify and monitor activities in a site," W. E. L. Grimson, C. Stauffer, R. Romano, L. Lee, P. Viola, O. Faugeras, Second International Workshop on Cooperative Distributed Vision, Osaka, Japan, November 1998.

["Using Adaptive Tracking to Classify and Monitor Activities in a Site,"](#) W.E.L. Grimson, L. Lee, R. Romano, and C. Stauffer, Proceedings of Computer Vision and Pattern Recognition, 1998, pp. 22-31.

"Face Verification for Real-time Applications," R. Romano, D. Beymer, and T. Poggio, Proceedings of Image Understanding Workshop, Vol. 1, Palm Springs, CA, February 1996, pp. 747-756.

Activities & Awards

[ColorStack](#), Board Member, 2022-present.

[Latinas in Computing](#), Co-Founder and Board Member, 2006-present.

Society of Hispanic Professional Engineers (SHPE) Star Diversity Award, 2015.

#YesWeCode Advisory Board, 2015.

CNET 20 Most Influential Latino/as, 2014.

Watsonville Tecnología-Educación-Comunidad (TEC) Community Leadership Council (CLC),
2012-2014.

[Anita Borg Institute](#), Industry Advisory Board, 2009.

[LBNL Laboratory Directed Research and Development \(LDRD\)](#), 2005.

\$80,000 research grant for Statistical Feature Modeling for Scientific Data Via Basis Decomposition

[Luis W. Alvarez Postdoctoral Fellowship](#), 2003.