

Max Sklar

Machine Learning Engineer, Technology Strategist, and Podcaster

ABOUT ME

I am an experienced engineer, data scientist, and product strategy leader at Foursquare. I have come to specialize in working on first and early versions of new technology, where being adaptable and managing uncertainty is key. My professional interests spans from building consumer applications to deploying deep statistical and machine learning systems. I also have a large amount of experience in local search, recommendations, and causal modeling. Through my weekly podcast, I frequently communicate the issues relevant to my field and interview industry leaders.

WORK EXPERIENCE

Foursquare Labs

New York, NY — May 2011 - Present

My work at Foursquare includes the core recommendation algorithm, internationalization, sentiment analysis, natural language processing, tip ranking, statistical voting algorithms, and ad attribution.

I built the first version of venue ratings in 2012, which is based on a machine learning algorithm I wrote myself, a variant of logistic regression. In 2013, more engineers began to use the the NLP pipeline I had kicked off, so I assisted them in bringing better internationalization tooling to our system, as well as ultimately building up Foursquare's [taste graph](#).

In 2015, I volunteered to begin work as the technical architect of [Marsbot](#), a new product that reorganizes 6 years of work into a brand new place recommendation system with a natural language interface. In addition to designing the system from a technical perspective, I worked closely with the product and executive teams to define where Marsbot fits in our app ecosystem and in the marketplace.

In 2017 I formulated and developed Foursquare's proprietary machine learning attribution algorithm, which calculates ad effectiveness at getting people into real world stores. It was launched in 2018 and I developed and maintained the system throughout the year.

Yodle, Inc

New York, NY — February 2009 - February 2010

I worked on a (now-defunct) local search application called Yodle Local.

Wireless Generation

Brooklyn, NY — June 2006 - January 2009

Wireless Generation (now Amplify) is an education technology company. I built data dashboards and mobile applications.

INDUSTRY TALKS

I have presented at several conferences, and am a frequent guest speaker at meetups and university courses. I enjoy putting together presentations that are engaging and enlightening as well as targeted at specific audiences. Many of my talks are freely available online.

Building a Personal Assistant: An Industry Case Study

Massachusetts Institute of Technology, Cambridge, MA — September 2016

I will be one of the industry speakers at the upcoming 10th ACM Conference on Recommender Systems. This will be one of the few talks on conversational recommender systems, and I will be sharing my experiences with getting Marsbot shipped.

Workshop on Urban Data Science

University of Cambridge, Cambridge, UK — December 2015

A [20 minute talk](#) about our analysis of language in Foursquare used across cultures and time as well as our core venue search technology.

Beyond Coding: The Importance and Best Practices of Technical Communication

New York, NY — 2015 - 2016

A series of talks about workplace communication for students and professionals starting in technology careers. Because this talk was popular, we were invited to repeat it at CUNY and Touro college. My colleague and I will be repeating this talk for the 2016 [Beyond Coding](#) class.

Introduction to Natural Language Processing

New York, NY — 2014

A [tutorial on natural language processing](#) for students participating in NYU's tech week.

Machine Learning Meetup: Digging into the Dirichlet Distribution

New York, NY — 2013

A [one hour talk](#) about my [open source project](#) to find optimal dirichlet distributions in count data.

Data Gotham

New York, NY — 2013

A [lightning talk](#) given at a conference for Data Scientists.

QCon New York 2012: Bayesian Inference with Foursquare Data

New York, NY — 2013

PUBLICATIONS

10th ACM Conference on Recommender Systems

Yang, Stephanie and Max Sklar. "Detecting Trending Venues using Foursquare Data." RecSys Posters. 2016.

Patent: System and Method for Providing Recommendations with a Location-Based Service

Moore, Justin, et al. "System and method for providing recommendations with a location-based service." U.S. Patent No. 9,183,504. 10 Nov. 2015.

8th ACM Conference on Recommender Systems

Sklar, Max, and Kristian J. Concepcion. "Timely Tip Selection for Foursquare Recommendations." RecSys Posters. 2014.

Fast MLE Computation for the Dirichlet Multinomial

Sklar, Max. "Fast MLE Computation for the Dirichlet Multinomial." arXiv preprint arXiv:1405.0099 (2014).

6th ACM Conference on Recommender Systems

Sklar, Max, Blake Shaw, and Andrew Hogue. "Recommending interesting events in real-time with foursquare check-ins." Proceedings of the sixth ACM conference on Recommender systems. ACM, 2012.

Other Projects

Podcast Host, *The Local Maximum*

Brooklyn, NY — February 2018 - present

I host and produce a weekly podcast called the [Local Maximum](#) where I cover a wide variety of topics including tutorials on probability and mathematics, to discussions of current events in software and tech, as well as important emerging technology. I interview a variety of people who are either important engineers, creators, and entrepreneurs, or more generally have something interesting to say about the topics on the show.

Yale Alumni Service Corps Advisory Board Member

New Haven, CT — May 2013 - present

We travel to underserved communities around the world, and work to solve problems and promote cross-cultural awareness. In Nicaragua in 2014, I serves as the leader of the business development team where we worked with small businesses in a rural community to develop plans to increase their profitability. As a board member, I have work on problems such as how we should design our trips to both have the most impact on the target community and for Yale.

Yale Alumni Service Corps Trip Leader

Laughlin, NV — October 2017

In 2017, I led a group of 50 volunteers to the [Fort Mojave Indian Reservation](#). There, the group divided into several teams that provided job skills and training, educational instruction, library organization, and construction of a sun shelter and picnic area. The trip also included cultural activities including the Fort Mojave Indian Day Parade.

My duties included the initial contact with the tribal administration, going on an advanced trip in 2016 to scout the area and learn about the culture, planning the groups and schedules, organizing people into groups with leaders, working with each group leader to create a plan, fielding questions from participants, making announcements, ensuring cultural compatibility between participants and the community, facilitating the teams on site, some transportation, and being the group figurehead.

Adjunct Instructor for Data Structures

New York University, New York, NY — 2010 - 2013

Talk Radio Host, Yale Radio, WYBC AM

New Haven, CT — 2004 - 2006

EDUCATION

New York University, New York, NY

Master of Science in Information Systems — May 2011

Yale University, New Haven, CT

Bachelor of Science in Computer Science — May 2006

