P.S., Want a summary of ML advancements? ml-surveys

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- 1. Monitoring Data Quality at Scale with Statistical Modeling Uber
- 2. An Approach to Data Quality for Netflix Personalization Systems Netflix
- 3. Automating Large-Scale Data Quality Verification (Paper) Amazon
- 4. Meet Hodor Gojek's Upstream Data Quality Tool Gojek
- 5. Reliable and Scalable Data Ingestion at Airbnb Airbnb
- 6. Data Management Challenges in Production Machine Learning (Paper) Google

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Facebook

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- 1. Zipline: Airbnb's Machine Learning Data Management Platform Airbnb
- 2. Sputnik: Airbnb's Apache Spark Framework for Data Engineering Airbnb
- 3. Introducing Feast: an open source feature store for machine learning (Code) Gojek
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- 5. Unbundling Data Science Workflows with Metaflow and AWS Step Functions Netflix

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- 2. Open Sourcing Amundsen: A Data Discovery And Metadata Platform (Code) Lyft
- 3. Using Amundsen to Support User Privacy via Metadata Collection at Square Square
- 4. Democratizing Data at Airbnb Airbnb
- 5. Databook: Turning Big Data into Knowledge with Metadata at Uber Uber
- 6. Metacat: Making Big Data Discoverable and Meaningful at Netflix Netflix
- 7. DataHub: A Generalized Metadata Search & Discovery Tool LinkedIn
- 8. How We Improved Data Discovery for Data Scientists at Spotify Spotify
- 9. How We're Solving Data Discovery Challenges at Shopify Shopify

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- 2. Chimera: Large-scale Classification using Machine Learning, Rules, and Crowdsourcing (Paper)
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- 3. Large-scale Item Categorization for e-Commerce (Paper) DianPing, eBay
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- 5. Categorizing Products at Scale Shopify
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- 10. Testing Firefox More Efficiently with Machine Learning Mozilla
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- 2. Using Machine Learning to Predict the Value of Ad Requests Twitter
- 3. Open-Sourcing Riskquant, a Library for Quantifying Risk (Code) NetFlix

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- 2. Engineering Extreme Event Forecasting at Uber with RNN Uber
- 3. Transforming Financial Forecasting with Data Science and Machine Learning at Uber Uber
- 4. Under the Hood of Gojek's Automated Forecasting Tool GoJek
- 5. BusTr: Predicting Bus Travel Times from Real-Time Traffic (Paper, Video) Google

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- 2. Temporal-Contextual Recommendation in Real-Time (Paper) Amazon
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- 9. Personalized Recommendations for Experiences Using Deep Learning TripAdvisor
- 10. E-commerce in Your Inbox: Product Recommendations at Scale Yahoo
- 11. Product Recommendations at Scale (Paper) Yahoo
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- 13. Netflix Recommendations: Beyond the 5 stars (Part 1 (Part 2) Netflix
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- 21. Music recommendation at Spotify Spotify
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- 23. For Your Ears Only: Personalizing Spotify Home with Machine Learning Spotify
- 24. Reach for the Top: How Spotify Built Shortcuts in Just Six Months Spotify
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- 26. The Evolution of Kit: Automating Marketing Using Machine Learning Shopify
- 27. Using Machine Learning to Predict what File you Need Next (Part 1) Dropbox
- 28. Using Machine Learning to Predict what File you Need Next (Part 2) Dropbox
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- 30. A Closer Look at the Al Behind Course Recommendations on LinkedIn Learning (Part 1)
- 31. A Closer Look at the Al Behind Course Recommendations on LinkedIn Learning (Part 2)

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- 34. A Meta-Learning Perspective on Cold-Start Recommendations for Items (Paper) Twitter
- 35. Zero-Shot Heterogeneous Transfer Learning from RecSys to Cold-Start Search Retrieval (Paper) Google
- 36. Improved Deep & Cross Network for Feature Cross Learning in Web-scale LTR Systems (Paper)

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- 37. Personalized Channel Recommendations in Slack Slack

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- 1. Amazon Search: The Joy of Ranking Products (Paper, Video, Code) Amazon
- 2. Why Do People Buy Seemingly Irrelevant Items in Voice Product Search? (Paper) Amazon
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- 11. Entity Personalized Talent Search Models with Tree Interaction Features (Paper) LinkedIn
- 12. In-session Personalization for Talent Search (Paper) LinkedIn
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- 14. Quality Matches Via Personalized AI for Hirer and Seeker Preferences LinkedIn
- 15. Understanding Dwell Time to Improve LinkedIn Feed Ranking LinkedIn
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- 17. Al at Scale in Bing Microsoft
- 18. Query Understanding Engine in Traveloka Universal Search Traveloka
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- 22. Bayesian Product Ranking at Wayfair Wayfair
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- 24. Understanding Searches Better Than Ever Before (Paper) Google
- 25. Shop The Look: Building a Large Scale Visual Shopping System at Pinterest (Paper, Video)

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- 3. Building Smart Replies for Member Messages LinkedIn
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- 15. Deploying Lifelong Open-Domain Dialogue Learning (Paper) Facebook
- 16. Goal-Oriented End-to-End Conversational Models with Profile Features in a Real-World Setting (Paper) Amazon
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- 18. Give Me Jeans not Shoes: How BERT Helps Us Deliver What Clients Want Stitch Fix
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- 20. PEGASUS: A State-of-the-Art Model for Abstractive Text Summarization (Paper, Code) Google
- 21. Photon: A Robust Cross-Domain Text-to-SQL System (Paper) (Demo) Salesforce
- 22. Applying Topic Modeling to Improve Call Center Operations RICOH

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- 1. Practice on Long Sequential User Behavior Modeling for Click-Through Rate Prediction (Paper) Alibaba
- 2. Search-based User Interest Modeling with Sequential Behavior Data for CTR Prediction (Paper) Alibaba
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- 7. Doctor Al: Predicting Clinical Events via Recurrent Neural Networks (Paper) Sutter Health
- 8. How Duolingo uses Al in every part of its app Duolingo
- 9. Leveraging Online Social Interactions For Enhancing Integrity at Facebook (Paper, Video)

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- 1. Categorizing Listing Photos at Airbnb Airbnb
- 2. Amenity Detection and Beyond New Frontiers of Computer Vision at Airbnb Airbnb
- 3. Powered by Al: Advancing product understanding and building new shopping experiences

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- 4. Creating a Modern OCR Pipeline Using Computer Vision and Deep Learning Dropbox
- 5. How we Improved Computer Vision Metrics by More Than 5% Only by Cleaning Labelling Errors Deepomatic
- 6. A Neural Weather Model for Eight-Hour Precipitation Forecasting (Paper) Google
- 7. Machine Learning-based Damage Assessment for Disaster Relief (Paper) Google
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- 2. Dynamic Pricing on E-commerce Platform with Deep Reinforcement Learning (Paper) Alibaba
- 3. Budget Constrained Bidding by Model-free Reinforcement Learning in Display Advertising (Paper) Alibaba
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- 5. Deep Reinforcement Learning in Production Part1 Part 2 Zynga
- 6. Building Al Trading Systems Denny Britz

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- 2. Detecting and Preventing Abuse on LinkedIn using Isolation Forests (Code) LinkedIn
- 3. Preventing Abuse Using Unsupervised Learning LinkedIn
- 4. The Technology Behind Fighting Harassment on LinkedIn LinkedIn

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- 8. Blocking Slack Invite Spam With Machine Learning Slack
- 9. Cloudflare Bot Management: Machine Learning and More Cloudflare
- 10. Anomalies in Oil Temperature Variations in a Tunnel Boring Machine SENER
- 11. Using Anomaly Detection to Monitor Low-Risk Bank Customers Rabobank

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- 1. Building The LinkedIn Knowledge Graph LinkedIn
- 2. Retail Graph Walmart's Product Knowledge Graph Walmart
- 3. Food Discovery with Uber Eats: Using Graph Learning to Power Recommendations Uber
- 4. AliGraph: A Comprehensive Graph Neural Network Platform (Paper) Alibaba
- 5. Scaling Knowledge Access and Retrieval at Airbnb Airbnb
- 6. Traffic Prediction with Advanced Graph Neural Networks DeepMind
- 7. SimClusters: Community-Based Representations for Heterogeneous Recommendations at Twitter (Paper, Video)

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- 1. How Trip Inferences and Machine Learning Optimize Delivery Times on Uber Eats Uber
- 2. Next-Generation Optimization for Dasher Dispatch at DoorDash
- 3. Matchmaking in Lyft Line (Part 1) (Part 2) (Part 3) Lyft
- 4. The Data and Science behind GrabShare Carpooling (PAPER NEEDED) Grab
- 5. Optimization of Passengers Waiting Time in Elevators Using Machine Learning Thyssen Krupp AG

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- 1. Unsupervised Extraction of Attributes and Their Values from Product Description (Paper)

 Rakuten
- 2. Information Extraction from Receipts with Graph Convolutional Networks Nanonets
- 3. Using Machine Learning to Index Text from Billions of Images Dropbox
- 4. Extracting Structured Data from Templatic Documents (Paper) Google
- 5. AutoKnow: self-driving knowledge collection for products of thousands of types (Paper, Video) Amazon

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- 1. Snorkel DryBell: A Case Study in Deploying Weak Supervision at Industrial Scale (Paper) Google
- 2. Osprey: Weak Supervision of Imbalanced Extraction Problems without Code (Paper) Intel
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- 2. Language Models are Few-Shot Learners (Paper) (GPT-3 Blog post) OpenAI
- 3. Image GPT (Paper, Code) OpenAI
- 4. Deep Learned Super Resolution for Feature Film Production (Paper) Pixar
- 5. Unit Test Case Generation with Transformers Microsoft

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- 1. The Reusable Holdout: Preserving Validity in Adaptive Data Analysis (Paper) Google
- 2. Detecting Interference: An A/B Test of A/B Tests LinkedIn
- 3. Experimenting to Solve Cramming Twitter
- 4. Announcing a New Framework for Designing Optimal Experiments with Pyro (Paper) (Paper)
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- 6. Large Scale Experimentation at Stitch Fix (Paper) Stitch Fix
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- 1. Building Inclusive Products Through A/B Testing (Paper) LinkedIn
- 2. LiFT: A Scalable Framework for Measuring Fairness in ML Applications (Paper) LinkedIn

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- 1. Practical Recommendations for Gradient-Based Training of Deep Architectures (Paper) Yoshua Bengio
- 2. Machine Learning: The High Interest Credit Card of Technical Debt (Paper) (Paper) Google
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- 6. 150 Successful Machine Learning Models: 6 Lessons Learned at Booking.com (Paper) Booking
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 Department Stitch Fix
- 8. Beware the Data Science Pin Factory: The Power of the Full-Stack Data Science Generalist Stitch Fix
- 9. Successes and Challenges in Adopting Machine Learning at Scale at a Global Bank Rabobank

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- 1. 160k+ High School Students Will Graduate Only If a Model Allows Them to International Baccalaureate
- 2. When It Comes to Gorillas, Google Photos Remains Blind Google
- 3. An Algorithm That 'Predicts' Criminality Based on a Face Sparks a Furor Harrisburg University
- 4. It's Hard to Generate Neural Text From GPT-3 About Muslims OpenAI
- 5. A British Al Tool to Predict Violent Crime Is Too Flawed to Use United Kingdom
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