

CV

Maria Dimakopoulou

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EDUCATION

STANFORD UNIVERSITY

Ph.D. in Artificial Intelligence & Causal Inference

Advisors: Benjamin Van Roy & Susan Athey

GPA 4.26/4.30

- Recipient of Stanford's "Outstanding Academic Achievement at the Doctoral Level" Award.
- Recipient of the "Arvanitidis in Memory of William K. Linvill" Stanford Graduate Fellowship.

2015 – 2018,
Stanford, CA

STANFORD UNIVERSITY

M.Sc. in Operations Research & Optimization

GPA 4.23/4.30

- Recipient of Stanford's "Outstanding Academic Achievement at the Masters Level" Award.
- Graduated 1st of the class.

2015 – 2016,
Stanford, CA

NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA)

M.Sc. and B.Sc. in Electrical Engineering & Computer Science

GPA 10.00/10.00

- Highest GPA in 200-year history of National Technical University of Athens.
- Ranked nationwide 1st in the university entry exams with a score 19920/20000.

2009 – 2014,
Athens, Greece

PROFESSIONAL EXPERIENCE

UBER

Mobility Marketplace

- **Director of Engineering – Head of Pricing & Incentives Planning (3/2025 – present)**

Leading the Mobility Simulation & Planning organization of 50+ Engineers & Engineering Managers that is responsible for the algorithmic optimization of rider and driver pricing and incentives at Uber's Mobility Marketplace. The organization interfaces closely with Uber's Central Operations and innovates in a range of Engineering & Science disciplines spanning Machine Learning, Economics, Backend and Data at scale.

SPOTIFY

Personalization Mission

- **Director of Machine Learning Engineering – Head of Homepage Personalization (11/2022 – 2/2025)**

Led the Homepage Personalization organization of 60+ Engineers & Engineering Managers that is responsible for the personalized recommendations across music, podcasts and audiobooks on the Homepage of 650+ million Spotify users. Drove strategy & execution across Machine Learning, Backend and Data at scale, with the goal to serve recommendations that maximize user satisfaction, while enabling all of Spotify's strategic & business needs.

- **Director of Machine Learning Engineering – Spotify Distribution Strategy Lead (9/2024 – 2/2025)**

Serving as the company-wide Strategy Lead of a Bet focused on enhancing content discovery on Spotify and

involving 120+ FTEs across Engineering, Product Management, Data Science & Design.

- **Senior Manager of Machine Learning Engineering – Head of Home Assembly & Ranking (1/2022 – 11/2022)**
Led 2 teams within the Homepage Personalization organization at Spotify; one responsible for developing a unified relevance ranker for all Spotify content and the other responsible for optimizing the personalized placement of organic and promotional content on the homepage, to balance user satisfaction and Spotify business needs.

NETFLIX RESEARCH

Product ML Research, Data Science & Engineering

- **Adaptive Experimentation Tech Lead (1/2020 – 1/2022)**
Built a cross-functional working group of researchers, data scientists and engineers to deliver new experimentation capabilities for Netflix as an alternative to A/B testing that increased experimentation velocity & rollout decisions. (1) automated ML-based A/B test cell selection, (2) adaptive cell allocation rates during-test, (3) valid inference from adaptively collected data post-test, (4) ML-based short-term proxy metrics of long-term A/B test metrics.
- **Causal Machine Learning Research Area Lead (12/2018 – 1/2022)**
Pioneered the causal ML investment at Netflix and established its usage across Messaging personalization, Netflix Billboard personalization and UI personalization. Drove Netflix Research's initiatives in the intersection of Causal Inference & Machine Learning, designing algorithms and driving their adoption in production. Authored internal methodology guide, co-authored several papers accepted in top-tier ML conferences and served as co-organizer or invited speaker in multiple internal forums and external venues.

MICROSOFT RESEARCH

NYC Machine Learning Lab

- **Visiting Research Scientist (6/2018 – 9/2018):** Designed a reinforcement learning value-function decomposition allowing the breakdown of complex RL tasks into simpler ones that can be learned faster by multiple RL agents (in partnership with Miro Dudik, Rob Schapire). Designed a range of new off-policy estimators that exhibit better bias-variance properties than existing ones in slate contextual bandit settings (in partnership with Miro Dudik).

SALESFORCE

Data Science Team

- **Visiting Research Scientist (6/2016 – 9/2016):** Designed and implemented end-to-end the Salesforce DMP (f.k.a. Krux) Multi-Touch Attribution algorithm. Launched it to a group of high-profile clients. Featured in Mobile Marketing Association's review for its 800 member-companies.

GOOGLE

Google Research

- **Ad Exchange Optimization Team (11/2014 – 4/2015):** Developed a dynamic pricing algorithm that yielded annual revenue lift for Google's Real-Time Bidding in the scale of hundreds of millions of dollars. Launched it in the production Ad Exchange Dynamic Pricing Pipeline, with praise from the VP of Google Ad Exchange.
- **Operations Research & Optimization (8/2012 – 11/2012 & 7/2013 – 11/2013):** Designed optimization algorithm that solved the 3-year unsolved measurement corruption erratum on Intel processors impacting 1000s of Intel machines. Improved scheduling of hardware events on the processors' counters in the Google production kernel that increased measurement accuracy and hardware utilization by 18%. Designed linear & mixed integer programming models for convex & non-convex cost optimization scheduling problems in Google Technical Infrastructure and Google Geo.

PUBLICATIONS & PREPRINTS

- **Calibrated Recommendations as a Maximum Flow Problem**
Abdollahpouri, Nazari, Gain, Gibson, Anderton, Dimakopoulou, Carterette, Lalmas, Jebara – *WSDM 2023*
- **Evaluating the Surrogate Index as a Decision-Making Tool Using 200 A/B Tests at Netflix**
Zhang, Zhao, Le, Dimakopoulou, Kallus – *arXiv:2311.11922; MIT CODE 2023*
- **Society of Agents: Regrets Bounds of Concurrent Reinforcement Learning**
Chen, Dong, Bai, Dimakopoulou, Xu, Zhou – *NeurIPS 2022*
- **Online Multi-Armed Bandits with Adaptive Inference**
Dimakopoulou, Ren, Zhou – *NeurIPS 2021*
- **Post-Contextual-Bandit Inference**
Bibaut, Dimakopoulou, Kallus, Chambaz, van der Laan – *NeurIPS 2021*
- **Risk Minimization from Adaptively Collected Data: Guarantees for Supervised and Policy Learning**
Bibaut, Kallus, Dimakopoulou, Chambaz, van der Laan – *NeurIPS 2021*
- **Sequential Causal Inference in a Single World of Connected Units**
Bibaut, Petersen, Vlassis, Dimakopoulou, van der Laan – *arXiv:2101.07380*
- **Doubly Robust Off-Policy Evaluation with Shrinkage**
Su, Dimakopoulou, Krishnamurthy, Dudik – *ICML 2020; US Patent 16/657,533*
- **ADMM SLIM: Sparse Recommendations for Many Users**
Steck, Dimakopoulou, Riabov, Jebara – *WSDM 2020*
- **Marginal Posterior Sampling for Slate Bandits**
Dimakopoulou, Vlassis, Jebara – *IJCAI 2019*
- **On the Design of Estimators for Bandit Off-Policy Evaluation**
Vlassis, Bibaut, Dimakopoulou, Jebara – *ICML 2019*
- **Balanced Linear Contextual Bandits**
Dimakopoulou, Zhou, Athey, Imbens – *AAAI 2019*
- **Scalable Coordinated Exploration in Concurrent Reinforcement Learning**
Dimakopoulou, Osband, Van Roy – *NeurIPS 2018*
- **Coordinated Exploration in Concurrent Reinforcement Learning**
Dimakopoulou, Van Roy – *ICML 2018*
- **Estimation Considerations in Contextual Bandits**
Dimakopoulou, Zhou, Athey, Imbens – *arXiv:1711.07077; NeurIPS 2017 ML & Causal Inference workshop*
- **Market-Based Dynamic Service Mode Switching in Virtualized Wireless Networks**
Dimakopoulou, Bambos, Valdez-Vivas, Apostolopoulos – *IEEE PIMRC 2017*
- **Reliable and Efficient Performance Monitoring in Linux**
Dimakopoulou, Eranian, Koziris, Bambos – *ACM/IEEE Supercomputing 2016*

HONORS & AWARDS

- **Spotify 20/20 R&D Senior Leadership Program (2022)**
selected in Spotify's R&D senior leadership 2022 cohort.
- **Stanford University Outstanding Academic Achievement at the Doctoral Level Award (2019)**
presented annually to the top graduating Ph.D. student of Stanford, MS&E.

- **Forbes 30 Under 30 Greece (2019)**
presented to “the brightest young entrepreneurs, leaders, and stars of Greek nationality worldwide”.
- **Stanford University “Arvanitidis in Memory of William K. Linvill” Graduate Fellowship (2015 – 2018)**
awarded for excellence in research and study.
- **Onassis Foundation Graduate Fellowship (2015 – 2018)**
awarded annually to the best performing Ph.D. students of Greek nationality worldwide.
- **Stanford University Outstanding Academic Achievement at the Masters Level Award (2016)**
presented annually to the top graduating M.Sc. student of Stanford, MS&E.
- **National Technical University of Athens Dean’s Council “Papakyriakopoulos” Honorary Award (2015)**
presented annually to the best performing student in Mathematics coursework across all NTUA.
- **Limmat Stiftung Foundation Academic Excellence Award (2015)**
- **Intel Honorary Award (2014)**
presented “in recognition for the creativity and drive in modifying the Linux Performance Monitoring Subsystem to improve the PMU accuracy in 1000s of Intel machines”.
- **Google Women Techmakers – Anita Borg Memorial Fellowship (2014)**
presented “for excellence in computer science and technology, outstanding academic achievement, leadership and community involvement”.
- **Google Spot Bonus Excellence Award (2013)**
presented for “multiple accomplishments and outstanding achievements in the Operations Research team”.
- **Google Peer Bonus Volunteering Award (2013)**
for “promoting careers in engineering to high-school girls and assisting Google's diversity efforts”.
- **National Technical University of Athens Dean’s Council “Thomaidion” Honorary Award (2011 – 2015)**
for excellence in academic performance across all NTUA departments.
- **State Scholarship Foundation of Greece Fellowship (2011 – 2015)**
for excellence in academic performance in NTUA’s Electrical Engineering & Computer Science department.
- **NTUA Dean’s Council “Agoniston Polytechniou” Honorary Award (2011)**
for ranking nationwide 1st in the entry exams of NTUA’s Electrical Engineering & Computer Science.
- **Triantafyllidis Foundation, Greek Finance Ministry & Greek Education Ministry Fellowship (2011)**
- **Eurobank EFG & Greek Education Ministry “Great Moment for Education” Honorary Award (2010)**
for ranking nationwide 1st in the entry exams of NTUA’s Electrical Engineering & Computer Science.
- **26th National Mathematics Olympiad Silver Medal (2009)**
- **Hellenic Mathematical Society Silver Medal at the “Euclid” Contest (2008)**
- **6th European Union Science Olympiad Bronze Medal (2008)**
- **Hellenic Mathematical Society Bronze Medal at the “Euclid” Contest (2005 – 2007)**

TALKS & WORKSHOPS

- Keynote speaker at **Industrial Recommendation Systems Workshop of ACM CIKM 2024** (October 25th 2024).
- Invited speaker at **Bernoulli IMS Seminar of the 2024 World Congress in Probability and Statistics** (August 14th 2024).
- Invited speaker at **Intel 2024 MLCon Conference** (June 6th 2024).
- Invited speaker at **Stanford 2024 Causal Science Center Conference on Experimentation** (May 31st 2024).
- Invited speaker at **Netflix 2024 Personalization, Recommendation and Search annual Summit** (May 31st 2024).
- Invited speaker at **Stanford/UCSF Bay Area Tech Economics Seminar** (December 7th 2023).

- Co-organizer of **RecSys 2022 MORS Workshop on Multi-Objective Recommender Systems** (September 23rd 2022).
- Co-organizer of **RecSys 2022 REVEAL Workshop on Reinforcement Learning for Recommender Systems** (September 22nd 2022).
- Invited speaker at **Women in Data Science (WiDS) Conference** (March 17th 2022).
- Co-organizer of **NeurIPS 2021 Causal Sequential Decisions Workshop** (December 14th 2021).
- Invited speaker at **Wharton School of the University of Pennsylvania** (October 25th 2021).
- Invited speaker and panelist at **ICML 2021 RL4RealLife Workshop** (July 23rd 2021).
- Invited speaker at **Netflix 2021 Personalization, Ranker and Search (PRS) annual Summit** (June 11th 2021).
- Invited speaker at **NeurIPS 2020 Expo** (December 6th 2020).
- Co-organizer of **RecSys 2020 Bandit and Reinforcement Learning from User Interactions (REVEAL) Workshop** (September 26th 2020)
- Invited speaker at **ICML 2020 Women In Machine Learning workshop** (July 13th 2020).
- Invited speaker at **INFORMS 2019 Bandits and Reinforcement Learning session** (October 20th 2019).
- Co-organizer of **RecSys 2019 Bandit and Reinforcement Learning from User Interactions (REVEAL) Workshop** (September 20th 2019).
- Invited speaker at **DeepMind** (September 16th 2019).
- Speaker at **IJCAI 2019 Online Learning Main Conference Track** (August 14th 2019).
- Speaker at **AAAI 2019 Machine Learning Main Conference Track** (January 29th 2019).
- Invited speaker at **Cornell's School of Operations Research and Information Engineering Young Researcher Workshop** (October 12th 2018).
- Invited speaker at **Google NYC Algorithms Seminar** (July 24th 2018).
- Speaker at **ICML 2018 Reinforcement Learning Main Conference Track** (July 11th 2018).
- Invited speaker at **Netflix Research Seminar** (May 25th 2018).
- Invited speaker at **NeurIPS 2017 From What If to What's Next: ML and Causal Inference Workshop** (December 8th 2017).