ML in PL 2019 Conference Summary

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Abstract

After two successful iterations of the PL in ML Conference – our state-of-the-art solution for the issue of building a machine learning community – in this summary, we present a novel approach – the ML in PL 2019 Conference. In which, we improved upon the proven formula of the previous events, by making it more international and open on contributions from our participants. In this summary, we present information on a multitude of different aspects of ML in PL Conference, including the course of the event, comparison to previous editions, results of the conference surveys, and directions we took as the organizers.

Contents

[1]The ordering of the organisers is arbitrary and should not indicate the amount of individual contribution put into the project.

Figure 1: Around 400 people at the opening talk by Joseph Sivic at the Auditorium Maximum of the University of Warsaw

1 Introduction

The main idea behind the ML in PL Conference is to build a vibrant community of people who are passionate about machine learning. We want to gather in one place researchers, both those world-renowned and those at the beginning of their careers, engineers using machine learning on a daily basis, students and, and hobbyists, so that they can mingle and exchange their knowledge, experience and perspective. We believe that this integration creates the opportunity for new connections, projects and ideas.

ML in PL Conference is a continuation of two previous events that took place under the name: PL in ML: Polish View on Machine Learning. While the PL in ML conferences were very successful events among the Polish machine learning community, change in name reflects our aim to make this event even more open to a broader audience from Europe and all around the world. We also want to promote Poland as a country that provides a suitable environment for machine learning studies, business and and above all research initiatives.

ML in PL 2019 Conference (ML in PL '19) was held in Warsaw between 22nd and 25th of November 2019. The main part of the conference was located at the Faculty of Mathematics, Informatics and Mechanics, but the opening lectures took place at the Auditorium Maximum of the University of Warsaw, due to its much greater capacity. There were almost 500 machine learning enthusiasts in the audience and they could attend 47 different lectures and talks. As usual in Poland around late fall, the weather was quite chilly with the temperature oscillating between +5°C and -2°C, but without any precipitation.

2 Conference programme

The ML in PL conference began on Friday (22.11) at 16:00 in the Auditorium Maximum of the University of Warsaw (26/28 Krakowskie Przedmieście Street) [1]. The participants were welcomed by Aleksander Buła and Michał Królikowski – the main coordinators of the project. Afterwards, three keynote lectures were held: **Josef Sivic**, Senior Researcher at Inria, started with a talk titled *Visual recognition: from Internet images towards robots that see*. **Łukasz Bolikowski,** Lead Data Scientist at BCG Gamma presented *Source AI: a platform that enables deployment of unbiased machine learning at scale.* The last lecture of the evening was given by **Razvan Pascanu**, Research

Scientist at DeepMind, and was titled: *Continual learning for deep learning and deep reinforcement learning*.

On Saturday (23.11), the conference started at 10:00 in the building of the Faculty of Mathematics, Informatics and Mechanics of the University of Warsaw (ul. Pasteura 2) [2]. The participants could attend various lectures organized in three parallel tracks. Speakers, ranging from those involved in academia to those working on the business applications, provided the listeners with a wide variety of topics to choose from. Each track was divided into sessions, each lasting 1 hour and 15 minutes. There were 25 minutes breaks between them and one longer break for lunch. Alongside the lectures, one-on-one conversation sessions between participants and the invited speakers were held which was the novel part of the conference programme this year, more information about this in Section 2.1 (Invited speakers).

The first day of lectures concluded with the first poster session, which gave an opportunity also for younger researchers, students and industry practitioners to present their current work to other participants and provide an environment for the discussions, which significantly contributes to building the machine learning community. The conference party organized afterwards in Samo Centrum Wszechświata, (29 Chłodna Street) provided further networking opportunities.

The conference continued in the building of the Faculty of Mathematics, Informatics and Mechanics on Sunday (24.11). From 11:00, the participants could once again attend talks and lectures divided between three parallel tracks as well as one on one meetings with the invited speakers. The second poster session took place in the middle of the day. The conference ended at 18:00, with closing remarks, during which winners of the best poster awards were announced.

On Monday (25.11), an additional day of practical workshops took place in the Golden Floor conference center (al. Jerozolimskie 123A).

The complete ML in PL conference agenda can be found at the conference website[2].

2.1 Invited speakers

This year one of the issues we focused on was to increase the invited speakers' diversity since one of our weaknesses is that in the past years all of our speakers were Polish and male. This year we had 12 invited speakers, out of whom 5 were of foreign origin and 2 were women. While we are conscious this is not the place we are striving to be in when it comes to diversity, it's a good change and we will continue working on increasing the diversity in the future editions.

This year we were honoured to host speakers from several major ML research organizations across the world: Karol Kurach, *Google Brain Zurich*, Razvan Pascanu, *DeepMind*, Martin Jankowiak, *Uber AI Labs*, Anton Osokin, *HSE Moscow*, Filip Wolski, *OpenAI*, Gul Varol, *University of Oxford*, Josef Sivic, *INRIA/ENS Paris/Czech Technical University*, Agnieszka Grabska-Barwińska, *DeepMind*, Wojciech Kotłowski, *Poznań University of Technology*, Jakub Tomczak, *Vrije Universiteit Amsterdam*, Marcin Andrychowicz, *Google Brain Zurich*, João Henriques, *University of Oxford*.

Each speaker delivered an hour long lecture followed by a 15 min Q& A session. More information about the speakers and the recordings of the lectures can be found at the conference website [3]

The new part of the conference programme this year were the one-on-one conversations with the invited speakers. Most of the speakers held 5–15 min one-on-one conversations with the participants. The participants could sign up for those conversation slots ahead of the conference, and since the demand outgrown the supply the slots were allocated at random. From talking to both speakers and participants we know that the range of conversation topics ranged from career advice to in-depth research chats.

2.2 Call for Contributions

To bring together a broad array of researchers, specialists, practitioners, educators, and students we invited all participants to submit their proposals for talks and posters in ML in PL Call for Contributions. We asked Call for Contributions participants to provide the title of their talk/poster,

[2] `https://conference2019.mlinpl.org/#agenda`

[3] `https://conference2019.mlinpl.org/#speakers`

Figure 2: Poster Session at the ML in PL 2019 Conference.

an abstract up to 300 words, a preference towards talk or poster presentation, and a list of previous talks and presentations. Based on this information, we selected talks and posters aiming for the broadest possible range of topics and perspectives as well as scientific excellence. An important factor was also the potential enjoyment and interest in the presentation from our audience. All selected talks and posters were presented during the main conference and their authors received a free ticket.

We want ML in PL to be a community center event and that is why we had increased the number of contributed talks for ML in PL'19. We had received 60 proposals for talks and 62 for posters. The authors included undergraduate, Masters and PhD students, as well as industry professionals, and ranged from theoretical research projects to business cases of machine learning applications. Eventually, we've selected 13 applications for 40 minutes long contributed talks and 18 for 20 minutes talks (31 in total), and 54 posters – more details about n section { ref} . As well as invited talks, talks of all contributed speakers that agreed on recording their talks can be found at the our YouTube channel[4].

2.3 Poster sessions

The participants of ML in PL conference 2019 could also attend two poster sessions, during which 54 posters were presented in total. All of them were selected through ML in PL Call for Contributions. Last year's poster session was very successful and attracted a large number of viewers. That is why, this year, we decided to split it into two separate sessions to give visitors more time for viewing and discussing the posters. Poster sessions were highly popular among conference participants also this year. And despite having two sessions, we had to slightly postpone a closing time to allow everyone to finish their lively conversations.

During the sessions, both the Scientific Board of the conference along with Invited Speakers and the participants voted for the best posters. The Best Poster award, granted by members of Scientific Board and Invited Speakers, was won by **Kacper Kania** from Wrocław University of Science and Technology with poster *How To Increase Tweets Popularity? Recommending Hashtags with PageRank and Word Embedding Model*. The Audience award, based on 104 votes card, was given

[4] `https://www.youtube.com/channel/UCmXKn-Xeq1ZTAQBTwsYw4AA`

Figure 3: "ConvNets in-depth, layer by layer, in PyTorch" Workshop at the ML in PL 2019 Conference.

to poster *Unsupervised Machine Translation* by **Kamil Pluciński** from Poznań University of Technology. The list of all presented posters can be found at the conference website[5].

2.4 Industry speakers

A number of industry talks were held by leading data scientists and engineers from the companies that use machine learning in their businesses. They gave the participants an opportunity to learn how the theory can be used for practical applications based on real–world cases. Moreover, inviting business representatives created an opportunity for new connections between the industry and academia. This year, we hosted great talks from companies like: BCG Gamma, Allegro, Microsoft, and Samsung.

2.5 Students' Day

On the first day of the conference (22.11), before the opening lectures in the Auditorium Maximum, in one of the lecture halls in the Faculty of Mathematics, Informatics and Mechanics building, a supplementary, free of charge event was held. It was called Students' Day and it was created to meet two strategic goals: (1) Open up the conference to younger, less experienced audience, that can benefit from entry-level talks and in the following years take part in the main event. (2) Connect AI student societies and young ML practitioners with each other and lay a foundation for Poland-wide community to arise.

The idea for Students' Day came after a conference was initially planned, and therefore ML in PL partnered with 2 student societies (Koło Naukowe Uczenia Maszynowego MIMUW [3], Koło Naukowe Sztucznej Inteligencji Golem EiTI PW [4]) to co-organize the event. The project quickly got up to speed, and benefited from support of existing conference organizer teams. In particular, Marketing Team provided contacts to student societies and Call for Contributions Team re-directed entry-level talk submissions to the Students' Day Team.

We received 23 talk submissions from 15 student organizations (some organizations sent multiple submissions, some submissions were individual). The goal of attracting students from a large number of locations was certainly achieved: speaker submissions were received from 9 different cities,

[5] `http://docs.mlinpl.org/conference/2019/posters.pdf`

including 4 outside of Poland. The event began at 10:15 on Friday (before conference opening), and consisted of 4 presentations, 5 lightning talks and a discussion panel - that way we were able to invite most of the organizations that submitted talk proposals. During the event, the attendance varied from 30 to 70 people at any given time, with approximately 110 unique visitors during the day. Majority of the audience was not registered for the main event, and received free tickets to the conference opening. Students' Day ended at 15:00 so that its participant could attend the conference opening in the Auditorium Maximum.

During the next half of the year KNSI Golem received at least two cooperation proposals from organizations that had appeared at the conference.

More information about Students' Day can be found at the conference website[6].

2.6 Workshops

The Workshop Day was held on Monday (25.11), after the main part of the conference. The vision behind it was to offer participants an opportunity to dive right into their topic of choice, providing them with an insightful view of the industry. It featured six full–day technical workshops on a diverse set of topics, ranging from the basics of machine learning to cutting–edge applications and state–of–the–art research. The workshops were held by the specialists from the following companies and organizations: Tooploox, Group of Machine Learning Research at the Jagiellonian University, RTB House, and by Piotr Migdał and Weronika Ormaniec without affiliation. Full list of workshops together with their agenda is available the conference website[7].

Overall, around 200 people attended the workshops, both from the industry and academia. Based on the post-workshop survey, the vast majority of the participants were satisfied with the workshop they had attended. The most enjoyable part for them was the competence of the tutors. The most often requested topics for a workshop next year was reinforcement learning, variational autoencoders, generative adversarial networks and a topic from natural language processing. One thing that could be improved is creating channels for communication between tutors and attendees before, so they can communicate with each other before the workshops.

3 Participants

3.1 Registration

Similarly to the previous edition of the Conference, the registration was conducted in two turns: the Early Bird Registration that lasted from 26th of August 2019 to 30th of September 2019 and the Regular Registration which was held on 23rd of October 2019.

One of the main goals of the ML in PL Conference is to connect machine learning passionates from different environments: researchers, practitioners, students, business representatives, PhD students or just machine learning hobbyists should mingle together to exchange experiences and inspirations. To meet this goal, taking into account our limited capacity, we had to guarantee that each of this group is sufficiently represented in the conference audience. Ensuring this was the main purpose of the Early Bird Registration. There, we asked those interested in the participation to complete the application form in which they specified their perspective on machine learning – whether they are specialists, researchers, students etc. Then, based on the answers, the conference committee determined the results of the registration in the fairest way possible, for each of these groups separately. In this way, we guaranteed that the ML in PL will consist of a diverse group of people that are really enthusiastic about machine learning.

On the other hand, the Regular Registration was held in the standard, first come, first served manner. It was held after the results of the Early Bird Registration were announced so that the people that could not be given an entrance, still had a chance to acquire it. It is worth noting that during the Regular Registration, the remaining 70 tickets **were sold out in under 1 minute.**

All in all, the **entrance** tickets to our conference, were obtained through the following means:

[6] `https://conference2019.mlinpl.org/#studentsday`

[7] `http://docs.mlinpl.org/conference/2019/workshops.pdf`

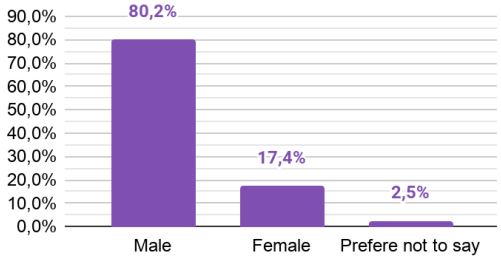
Figure 4: Location of the participants based on their declared affiliations.

- Early Bird Registration: 210 tickets,
- Regular Registration: 70 tickets,
- Invited Speakers: 12 tickets,
- Contributed Talks: 35 tickets,
- Posters: 54 tickets,
- Sponsorship packages: 58 tickets,
- Volunteers: 30 tickets,
- Scientific Board: 12 tickets,
- Other (technical staff and invited guests): 16 tickets.

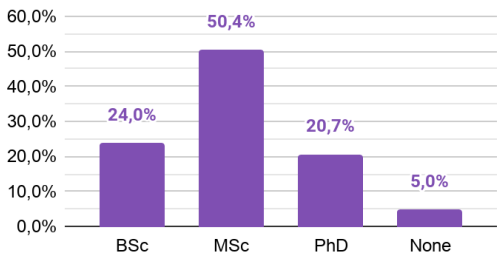
3.2 Statistics

The 2019 edition of the ML in PL conference has attracted around **500** people from all over Poland, as well as from a couple of other European countries. Around 18% of all attendees were women, which is almost the same number as in 2018. Based on affiliations declared by participants we estimate that 8% of them was outside from Poland, what is significant improvement compared to 4% in 2018, also Warsaw around 55% of attendees was from Warsaw, following 12% from Wrocław, 9% from Kraków and 8% from Poznań.

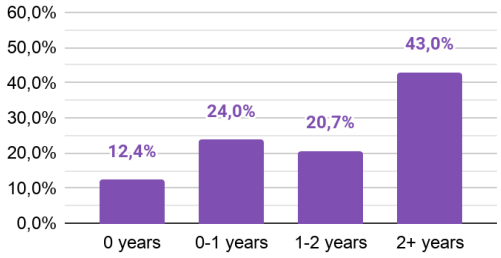
Additional information about the participants was gathered from the survey that the participants could fill during and after the conference. The survey contained basic questions about the industry experience and the level of education of our participants as well as the number of times a person attended ML in PL conference. The results are presented in Figure 5. Majority of our participants have a master degree (71.1%) and more than 1 year of experience (63.7%). These numbers are similar to the previous year. Almost 60% of participants took part in ML in PL (and PL in ML) conference for the first time, combined with the fact that the conference is also very popular among students with and without a bachelor degree, we can conclude that ML in PL conference attracts both those starting their adventure with machine learning as well as experienced professionals.



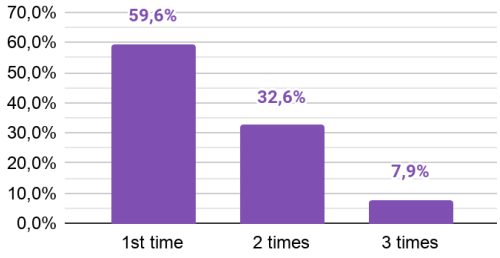
(a) Gender among the participants of the conference.



(b) Level of education among the participants of the conference based on the conference survey.



(c) Professional experience in machine learning among the conference participants based on the conference survey.



(d) Number of times the conference participants attended ML in PL (and formerly PL in ML) conferences, including this edition, based on the conference survey.

Figure 5: Results of the conference survey regarding participants

3.3 Attendees' opinions

We ask our attendees about their impressions of the conference in the survey, which they could fill out during the conference and over the internet after the event. We followed the same format as a survey from the 2018 edition to allow direct comparison between 2019 and 2018 conferences. In the survey, participants rated the conference overall and nine aspects of it individually on the scale from **1** to **7**, where **1** means "awful" and **7** means "superb" .

Aspect	Mean score in 2018	Mean score in 2019	Change
Conference overall	6.18	5.74	-7,12%
Scientific program	5.96	5.80	-2,68%
Atmosphere	6.22	5.99	-3,70%
Conference party	4.93	5.31	7,71%
Lunches & refreshments	5.32	5.04	-5,26%
Conference Slack	5.34	4.97	-6,93%
Poster sessions	5.71	5.32	-6,83%
Comfort	5.73	5.26	-8,20%
Information accessibility	5.93	5.03	-15,18%
Venue	-	5.20	-
Mean rating of the talks	4.89	5.32	8,79%

Table 1: Results of the conference surveys from 2018 and 2019 editions on main aspects of the conference.

Table 1 presents the results of the survey on general aspects of the conference compared to the 2018 edition. The survey was filled out by 121 attendees of the 2019 conference and 100 attendees of the 2018 conference. The mean score for the 2019 conference overall was **5.74** and compared to

Figure 6: ML in PL '19 conference organizers and volunteers team (incomplete). From left to right: top row (standing): Jakub Łaguna, Michał Smolarek, Kamil Biduś, Michał Filipiuk, Piotr Kozakowski, Antoni Jamiołkowski, and Michał Królikowski; 2nd row: Joanna Stachera, Aleksander Buła, Daniel Klepacki, and Radosław Matulewicz; 3rd row (in the center): Łukasz Pszenny; 4th row: Karolina Drabent, Natalia Piećko, Mateusz Frankowski, Marek Wydmuch; 5th row: Aleksandra Petrykiewicz, Krzysztof Kowalczyk, Kamil Bladoszewski and Adam Goliński; 6th row (on the right): Michał Zmysłowski; 7th row: Agnieszka Sitko, Kajetan Ostoja-Ciemny, Magdalena Augustyńska, Filip Czerniawski, 8th row (on the left): Marcin Kosiński.

6.18 of 2018 conference is a notable decrease. The lower rating of the conference may be caused by a few problems encountered by participants. Issues the most frequently mentioned in comments were: low quality of projectors in the Auditorium Maximum, mistakes in room numbers in printed programs, and not enough food on the second day of the conference. These are also reflected by the ratings of the conference, lunches & refreshments and information accessibility and venue, which were the lowest-rated aspects of the conference. The highest-rated aspects of the conference were the atmosphere during the event and the scientific program.

We think that expectations for this year's edition were higher since ML in PL got a lot of recognition after the 2018 edition. Based on the comments, we gathered through the surveys valuable feedback that will help to meet the expectations in future editions.

Individual talks also were rated by the participants on the same scale from 1 to 7. The highest of those ratings were received by **Marcin Andrychowicz, Karol Kurach** (Google Brain Zurich) - **6.40**, **Stanisław Jastrzębski** (New York University) - **6.24**, **Filip Wolski** (OpenAI) - **6.13**, **Gül Varol** (University of Oxford) - **6.10**, **Jakub Tomczak** (Vrije Universiteit Amsterdam) - **6.02**, and **Piotr Januszewski** (Gdańsk University of Technology) - **6.00**. The mean rating of the talks was **5.32** compared to **4.89** in 2018, which is a significant improvement.

4 Organization

We are a team of young people that want to promote machine learning in Poland. The majority of us are former or current students of the Faculty of Mathematics, Informatics and Mechanics of the University of Warsaw, however many of us are affiliated with other universities in Poland and abroad: Warsaw University of Technology, Warsaw School of Economics, Poznań University of Technology, and University of Oxford. All of us contributed to this project on a non-profit basis and with the goal in mind to deliver a high-quality event.

From a formal point of view, the conference was mainly organized by the ML in PL Association. It is a non-profit organization that we have created during the organization of the previous edition of the conference, in order to facilitate the legal aspects of organizing a conference. Its mission is to build and strengthen the local machine learning community, support machine learning students, foster the exchange of knowledge and cooperation and increase the public understanding of ML. In the future, it is possible that the ML in PL Association will be responsible for other projects apart from the ML in PL Conference. More information about the ML in PL Association can be found on its website[8].

The conference was also co-organized by two other non-profit organizations WhyR? Foundation [5] and MIMUW Community Association [6].

During all three days of the conference, a group of 30 volunteers was working alongside the organizers in a united goal of providing the best possible experience for the attendees.

4.1 Scientific Board

The conference was proudly supported by the Scientific Board which was composed of 12 experts in the machine learning and related fields: **Jan Madey** (Full Professor at the University of Warsaw), **Jacek Tabor** (Full Professor at the Jagiellonian University), **Krzysztof Geras** (Assistant Professor at the New York University), **Krzysztof Choromański** (Research Scientist at Google Brain and Adjunct Assistant Professor at Columbia University), **Henryk Michalewski** (Assistant Professor at the University of Warsaw, Staff Visiting Faculty Researcher at Google), **Piotr Miłoś** (Associate Professor at the University of Warsaw, Senior Data Scientist at deepsense.ai), **Marek Cygan** (Assistant Professor at the University of Warsaw, Chief Technology Officer at Nomagic), **Przemysław Biecek** (Associate Professor at the Warsaw University of Technology, Assistant Professor at the University of Warsaw), **Krzysztof Dembczyński** (Assistant Professor at the Poznań University of Technology, Senior Research Scientist at Yahoo! Research), **Tomasz Trzciński** (Adjunct Assistant Professor at the Warsaw University of Technology, Chief Scientist at Tooploox), **Jan Chorowski** (Assistant Professor at the University of Wrocław, Head of AI at NavAlgo), and **Piotr Biliński** (Assistant Professor at the University of Warsaw). The Scientific Board guided us through the whole process of preparation of the conference and provided their advice to us in the key moments. The scientific program and the posters were the main topics which were consulted with the board.

4.2 Sponsors

The 2019 edition of ML in PL conference was sponsored by a tremendous number of 13 companies on 3 different levels: Strategic, Gold, and Silver.

The list of sponsors goes as follows: the Strategic Sponsor – BCG Gamma, the Gold Sponsors: Allegro Tech, Amazon, Brainly, ByteDance, Microsoft, RTB House, Samsung, and last but not least the Silvers Sponsors: Appsilon, Jane Street, Pearson, Sumo Logic, and Tooploox. The conference could not have happened without them! We would like especially to cordially thank BCG Gamma for their constant support and mentorship throughout the last three years, since the first edition.

Taking into consideration feedback from our sponsors on a booth space during PL in ML'18, this year we have decided to reduce an area of the booth space to one floor in the middle of the conference area. Four companies set up their booths there, giving the attendees a chance to learn about their job opportunities in machine learning. Sponsors spoke highly about this change in a questionnaire after the event, giving an average rating of 9.7/10.

The booth space was also really active during ML in PL Students' day where students interested in Artificial Intelligence could take part for free in lectures and get free tickets for the opening of ML in PL directly from sponsors at their booths.

4.3 Building Machine Learning Community

In order to connect with the wide audience of machine learning enthusiasts, we reached out to a great number of machine learning students, research institutions, IT associations and media. It is our belief that the cooperation with these organizations allows people dedicated to various fields of

[8] `http://mlinpl.org`

machine learning to join and thus to contribute to the building the machine learning community. The list of all of our partners can be found on the conference website[9].

Apart from leading active communication via all major social media, we keep engaging in supporting (financially or promotionally) and participating in community events not only in Poland but also abroad. This year we have contributed to, among others, Science: Polish Perspectives Conference [7], Meet IT Camp [8], WhyR? Conference [9] or Zderzenia Poznawcze [10]. This provides us with an opportunity to connect, inspire and get inspired by various individuals and groups and as a result prepare projects which suit the needs of the community.

In the following list you can find some of the articles and publications that promote or describe ML in PL 2019 Conference:

Moreover, we launched projects such as open conference pre-meetings[10] with machine learning researchers working worldwide such as **Krzysztof Geras** (New York University), **Aleksander Mądry** (Massachusetts Institute of Technology), **Łukasz Kidziński** (Stanford), **Karol Kurach** (Google Brain), **Christian Szegedy** (Google) and **Ruslan Salakhutdinov** (Carnegie Mellon University) with the last two led remotely. We also made interviews[11] with three of them and shared them on our YouTube channel[12]. These initiatives aim to gather ML enthusiasts more frequently, share a particular experience and enhance discussion and integration of the community. In addition, this year we extended our social media activities by organizing contests. Thanks to various partnerships we could provide the participants with attractive prizes such as Intel Movidius Neural Compute Sticks and data labelling service.

All these efforts resulted in many publications mentioning, describing and promoting ML in PL 2019 Conference. One can find articles about the conference such as: general promotion of the conference [11, 12], interview with our Invited Speaker Jakub Tomczak [13], description of the conference from the perspective of one of the contributed speakers [14] or report on the state of the Polish artificial intelligence field, where ML in PL Conference is mentioned as one of the key conferences in the area [15].

5 Comparison with Previous Editions

ML in PL '19 was the biggest edition of the Conference so far, both in terms of the number of participants and the number of available talks and lectures. It was also the first edition that featured **Student's Day** (Section 2.5) and **One-on-One Sessions** (Section 2.1). The innovations of last year's edition: **Call for Contributions** (Section 2.2), which was splitted into Call for Talks and Call for Posters in 2018, and **Workshops** (Section 2.6) were also present. A comparison in numbers can be found in the Figure 7.

6 Conclusions

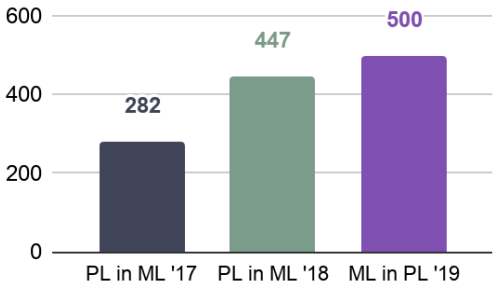
ML in PL '19 was the conference's biggest edition in terms of the number of participants, talks, and posters. We believe that we manage to achieve our goals of making the conference more diverse and international, regarding both speakers and participants, as well as more community-centric by allowing more contributed talks, and establishing partnerships with many associations. While the ratings gathered through the conference survey slightly decreased for most of the aspects of the event compared to previous editions, we believe that we managed to preserve the best qualities of past editions that made PL in ML successful. In future work, we want to further improve the ML in PL Conference based on the above conclusions, participants' feedback, and our constantly growing experience.

[9] https://conference2019.mlinpl.org/#mediaPartners

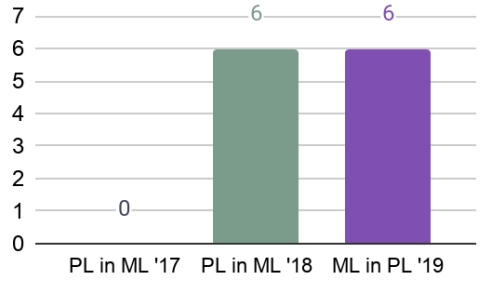
[10] https://www.youtube.com/watch?v=EZvRnCRdG_c&list=PLoaWrlj9TDhOWTKizq4hzy-O-tBJQ1cEh

[11] https://www.youtube.com/watch?v=-z-J5qR8hSQ&list=PLoaWrlj9TDhPlciI2YrER-cl4wqdKMIuE

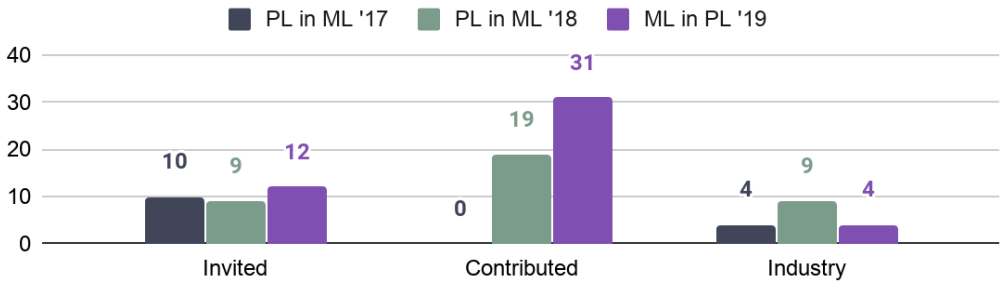
[12] https://www.youtube.com/channel/UCmXKn-Xeq1ZTAQBTwsYw4AA



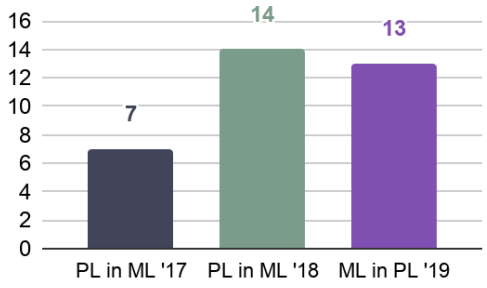
(a) Number of participants across editions.



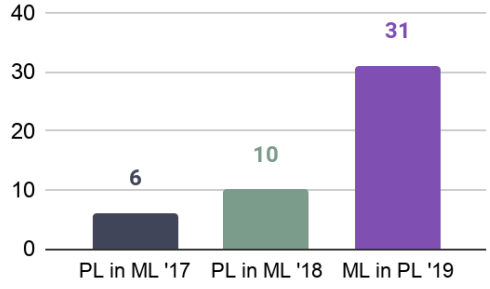
(b) Number of workshops across editions.



(c) Number of different type of talks across editions.



(d) Number of sponsors across editions.



(e) Number of media partners across conference editions.

Figure 7: Comparison between editions

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