

Yura Perov

CONTACT INFORMATION

*E-mail: yuraperov@gmail.com (preferred; we can schedule a phone call time by email)
+44-754-790-92-74 (only if really urgent, please)*

CURRENT

Babylon Health, London, UK

July 2018 — *Present*.
Senior Research Scientist.
October 2016 — June 2018.
Bayesian Data Scientist / Research Scientist.

Co-leading the development of the artificial intelligence for triage and diagnosis for primary care.
Squad Leader¹ for “Model & Inference” squad.

PUBLICATIONS

See my Google Scholar profile: <https://scholar.google.co.uk/citations?user=xjXQBqkAAAAJ>.

EDUCATION / QUALIFICATIONS

Oxford University, Department of Engineering Science, Wolfson College, Oxford, UK

October 2014 — May 2016.
Master’s of Science by Research (*similar to an MPhil, as this full-time MScR generally requires 2-3 years of research*). Studies and research in Machine Learning and Artificial Intelligence, in particular in Probabilistic Programming. Supervised by Prof. Frank Wood. Master’s thesis “Applications of Probabilistic Programming”.
Examiners: Prof. Nando de Freitas (mid-term), Prof. Zoubin Ghahramani (final), Prof. Michael Osborne (mid-term and final).

Oxford University, Department of Engineering Science, Somerville College, Oxford, UK

October 2013 — October 2014.
Visiting Student at Prof. Frank Wood’s group.

Siberian Federal University, Krasnoyarsk, Russia

2010—2014.
Bachelor’s of Science in Mathematics with honours from the Institute of Mathematics and Computer Science. GPA 5.0/5.0.

Massachusetts Institute of Technology, Cambridge, MA, USA

September 2012 — August 2013.
Computer Science and Artificial Intelligence Laboratory (EECS/BCS).
Visiting student at the Computational Cognitive Science Group (Prof. Tenenbaum) and the Probabilistic Computing Group (Dr. Mansinghka).

Yandex School of Data Analysis, Moscow, Russia

Autumn Term, 2011.
Computer Science Department, 3 Master Degree’s equivalent courses (remotely). GPA 5.0/5.0.

Siberian Federal University, Krasnoyarsk, Russia

2008—2010 (2 years of Bachelor’s degree).
Faculty of Economics. GPA 5.0/5.0.

Gymnasium #3, Krasnoyarsk, Russia

¹See <https://www.mckinsey.com/business-functions/organization/our-insights/the-agile-manager> for details on management structure in Agile Development.

1997—2008.
Graduated with honours.

LANGUAGES English (fluent), Russian (native).

SKILLS

- Languages and technologies: Python (including matplotlib, scikit-learn, numpy, scipy), C++, Clojure, Scheme, PHP, MATLAB, MySQL, ActionScript (Adobe Flash), HTML, JavaScript, Visual Basic, VBA, Church, Venture, Anglican, ZeroMQ. 16 years of software engineering experience.
- Machine Learning / AI: Bayesian Modelling and Inference, Monte Carlo methods (especially Markov Chain MC and Sequential MC), Probabilistic Programming, Optimisation. Experience with other major areas of Machine Learning (including Neural Networks).

ACADEMIC EXPERIENCE

Southampton University, Southampton, UK
Probabilistic Programming Workshop **22nd of March, 2016**

- Co-organised a workshop on probabilistic programming (using Anglican and other tools).

Oxford University, Oxford, UK
Master's by Research student, previously Visiting Student **October 2013 — May 2016**

- Research on probabilistic programming (generative modelling, Bayesian inference, MCMC and SMC), neural networks (especially their applications for better probabilistic inference), and automatic program synthesis.
- Contributed to probabilistic programming language and system “Anglican”. <https://probprog.github.io/anglican/>. The system is written in Clojure.
- Led with Prof. Frank Wood the Probabilistic Programming Reading Group 2013—2014 @ Oxford.
- Co-organized Bayesian Nonparametrics Lunches 2013—2015 @ Oxford (with Dr. François Caron, Prof. Frank Wood and Prof. Yee Whye Teh).
- Organised two Brainstorming Strong Artificial Intelligence Forum session @ Oxford (in 2015) and a Brainstorming strong AI Hackathon @ Oxford (in 2016).
- Teaching assistance at the Machine Learning Summer School 2014 (Reykjavik, Iceland) for the course “Probabilistic Programming and Bayesian Nonparametrics” by Prof. Frank Wood.
- Teaching assistance for the class B14 “Information Engineering Systems”.

Massachusetts Institute of Technology, Cambridge, MA USA
Visiting Student **January 2012 — August 2012 (remotely), September 2012 — August 2013**

- Research in probabilistic programming. Visiting student at the Computational Cognitive Science Group (Prof. Tenenbaum) and the Probabilistic Computing Group (Dr. Mansinghka).
- Implemented a prototype Clojure-based MCMC engine for a variant of probabilistic programming language Church, and added a multithreaded approximate MCMC scheme that runs multiple inference steps at the same time.
- Worked as the first lead developer for the Venture project, co-designed its first inference engine prototype, and contributed to the design of the VentureScript language and the overall system architecture. The prototype of Venture was written in C++ and Python.
- Implemented and debugged several Venture programs for machine learning and statistics — including variants of topic modeling, nonparametric clustering, and regression. Also applied topic models to real-world datasets.

- Contributed to research on generative probabilistic graphics programs for breaking simple CAPTCHAs and finding 3D road scenes. Results were published in our paper “Approximate Bayesian Image Interpretation using Generative Probabilistic Graphics Programs”, which was accepted for the full oral presentation at NIPS 2013 (acceptance rate: 20 of 1420).
- Contributed to an application of Venture to geophysics, as part of a project with Shell, and visited Shell Research in Houston, TX, to support the presentation of preliminary results.
- The visit and research was supported by Google “Rethinking AI” Grant and Russian President’s Fellowship.

École Polytechnique Fédérale de Lausanne, Switzerland

Summer Intern

June 2012 — August 2012

- Research in machine learning, AI and robotics. Project “Locomotion of Modular Robots: Optimizing Modular Robots Locomotion in Simulation and Applying Results to Real-World Robot”. School of Engineering, Biorobotics Laboratory. Supervised by Rico Möckel, Massimo Vespignani, Soha Pouya, Stéphane Bonardi, Prof. Auke Jan Ijspeert. Used C++.

Siberian Federal University, Krasnoyarsk, Russia

Undergraduate Research

May 2011 — June 2012

- Undergraduate research in optimization, genetic algorithms, supervised by Semenkin Evgeniy Stanislavovich².

Krasnoyarsk State Pedagogical University, Krasnoyarsk, Russia

Undergraduate Research

2010—2011

- Co-developed interactive handbook (self-tutor) “Programming” for undergraduate students”. PI of the project: Laletin Nicolay Victorovich³. The project was ranked the second in the competition organised by the Pedagogical University (Krasnoyarsk).

Extra Assistantship and Tutoring

- Indian-Russian Intense Autumn School for Schoolchildren and Students in Computer Science, Pune, India, September 2013. School co-organisation and coordination (educational component). Tutoring of schoolchildren and college/university students in Computer Science: programming languages and artificial intelligence section of the school.
- Spring term, 2010–2011 academic year, Siberian Federal University, Faculty of Mathematics, course “Number theory”, 2 lectures and 2 seminars.
- Spring term, 2010–2011 academic year, Siberian Federal University, Faculty of Mathematics, course “Theoretical mechanics”, 3 lectures and 3 seminars.
- Youth Summer (Winter, Autumn, Spring) Computer Science Projects Schools for Schoolchildren, 2008–2010. Took part as a tutor, teacher and co-organiser.

START-UP /
INDUSTRY
EXPERIENCE

Invrea (start-up), Oxford, UK

Co-founder, Executive Officer

January — September 2016

Bringing the state-of-the-art generative modelling machine learning methods (probabilistic programming, sequential / Markov chain Monte Carlo and variational inference) into Microsoft Excel. Leading the team of three. Check out at <http://invrea.com/>.

Project and company (LLC) “Proverim.com”

Co-founder, CTO

Autumn of 2007 — 2012

- “Proverim.com” was the system of electronic mark-book and SMS/web notification for schools (more than 50 schools used the system in 2011). It was run in 9 cities in Russia and franchised to Kazakhstan and Mongolia. I was a co-founder, author of the innovative technology and

²Professor in Siberian Federal University.

³Professor in Krasnoyarsk State Pedagogical University.

software, leader of IT-department (2 subordinates), software engineer, applied machine learning system developer. I combined the work with studies. The technical and machine learning components of the project had been conceived and implemented by me, then advanced by our great team. Used C++, Visual Basic, HTML, and JS.

Developer of AIMS web-site

Web-developer

2014

Developed and trained how to maintain a web-site for the EPSRC Centre for Doctoral Training in Autonomous Intelligent Machines and Systems @ Oxford.

Freelancer (web-sites and software developer), Russia

Product and project manager, software engineer

2006—2014

Including the development and support of the sites www.centrob.ru and www.love-foto.ru (managing 3 people part-time).

Online pageant contests, Krasnoyarsk, Russia

Co-author, leader, software engineer

2007—2008

- Co-author, software engineer, leader in organising city internet-contests “Miss” and “Mister” (online beauty contests, separately for women and men), as well as “Literary City Contest” (online city contests for writers; 5 writing contests were organized).

Educational computer games development, Krasnoyarsk, Russia

Product and project manager, software engineer

2007—2008

- The collection of six computer games for children “Developing games”, leading a team of 5 people working part-time.

“YarSoft” LLC, Krasnoyarsk, Russia

Programmer, system administrator

2005—2008

- Full-time combined with studies. The company specialisation was in software development and distribution, advertisement.

Lyceum No. 1310, Moscow

Different roles

Spring of 2008

- One-month training (as a visiting school pupil) at Lyceum No. 1310 (Moscow); technical personal assistant to the director of the lyceum (organising IT-support of All-Russian contest “the Big Game”); software engineer for the project “Publicator” of the Schoolchildren Newspapers Portal (portal.lgo.ru). This project was developed by me and enabled schoolchildren to create online internet newspapers during “the Big Game” event.

Project “Electronic Kiosk-Seller”, Krasnoyarsk, Russia

Software engineer, project lead

2005—2007

- Development, tuning and introduction (application) of the project “Electronic Kiosk-Seller” (“instant payment terminals”).

“IT-company”: the group of young freelancers, Krasnoyarskiy region, Russia

Chief of the company

2006—2008

- 10 part-time subordinates.

Project “Computer Agent for IRC-system”, Krasnoyarsk, Russia

Idea author, software engineer

2004—2005

- During the project “Computer Agent for IRC-system” a computer program was developed which analyzed messages from users in instant messengers with the help of statistics, and which acted on users’ instructions.

AWARDS, GRANTS,
AND SPOTLIGHTS

- Heidelberg Laureate Forum (August 2015), a young researcher laureate.
- Admission to Stanford Computer Science PhD program and full scholarship (tuition fee plus living costs, 2014 and deferred to 2015). Had to courteously decline.
- The Oxford Clarendon Fund Scholarship, the Cambridge International Scholarship and Ecole Polytechnique Fédérale de Lausanne PhD scholarships (2014). Courteously declined.
- National fellowship of the Government of the Russian Federation, October 2013. For outstanding studying and research activities.
- All-Russian Fellowship “Lift to the Future”, August 2013. Funded by Russian company “Sistema”. Grant holder.
European Erasmus Mundus exchange program (Eragnet-Mundus and Eragnet-Plus), April 2013. Fellowships for spending one year at the University of Glasgow on exchange program in Mathematics (for Bachelor students). Courteously declined.
- Conference “Neural Information Processing Systems Conference” 2012. Workshop “Probabilistic Programming: Foundations and Applications”, Lake Tahoe, Nevada, USA. Spotlight (short talk) and poster presentation, “Efficient, Envelope-based Multicore Markov Chain Inference for Church”.
Venture demo session (given by Vikash Mansinghka and Yura Perov).
- Switzerland, École Polytechnique Fédérale de Lausanne, the poster session of the EPFL Summer Research Program, August 2012. Best Student Poster Award (1st place) for the project “Locomotion of Modular Robots: Optimizing Modular Robots Locomotion in Simulation and Applying Results to Real-World Robot”.
- Russian President’s Fellowship Award for outstanding students, which was given to conduct research at MIT for one academic year. \$32,000.
- Switzerland, École Polytechnique Fédérale de Lausanne, School of engineering, Biorobotics Laboratory, Prof. Ijspeert, June—August 2012. Summer Research School in Technology and Life Sciences (acceptance rate: more than 27 people per place all over the world). Supervised by Rico Möckel, Massimo Vespignani, Soha Pouya, Stéphane Bonardi, Prof. Auke Jan Ijspeert. \$4800 scholarship.
- USA, Boston, MIT, “StartUp Access” program, 6—10 February 2012. Presentation of the business project “ProverimCom”, its achievements and prospects (as a chief technical officer of the project).
- Award “Best student of Siberian Federal University” (for outstanding achievements in studies, 2nd place), December 2011. Award “Best student” of Siberian Federal University is given only to 3 students of all years (17,000 undergraduates and master students) in each nomination.
- RuSSIR/EDBT 2011 Summer School in Information Retrieval & Database Technology, St. Petersburg, 2011. Presented results of the project “System of Electronic Mark-book for Schools Proverim.com” (poster session). Organizers: Saint Petersburg State University, ROMIP, EDBT Association.
Practical task in Machine Learning from Yandex during RuSSIR/EDBT Summer School. Award, 1st place (First Prize).
- Microsoft Computer Vision School, Moscow, 2011.
Diploma for successfully completing the school. Organizers: Microsoft Research, Lomonosov Moscow State University. 4th result in the practical task (tuning the classifier).
- Summer School in Software Engineering and Verification, Moscow, 2011. Certificate for successfully completing the school. Organizers: Microsoft Research, the Higher School of Economics.
- Yandex Summer School in Distributed Computing, Moscow (Dolgoprudny), 2011. Organizers: Yandex, Moscow Institute for Physics and Technology.

- International Summer School-Conference in Artificial Intelligence for students and young researchers “Intelligent systems and technologies: state-of-the-art and outlook” ISyT’2011, Tver (city), 2011. Award for the best student paper, 1st place; certificate of participating. Organizers: Russian Association for Artificial Intelligence, Tver State Technical University.
- X International FAMET’2011 Conference, Krasnoyarsk (section “Computer Science”). Paper “Planning the operation of web server processes”, presentation.
- Regional computer programs contest “Soft-Parade 2011”. Award “Ultimate Champion” (Grand Prize). <http://www.soft-parad.ru/>.
- Regional programmers challenge “Soft-Parade 2011”. Award, 1st place.
- VII All-Russian Scientific and Practical Conference of Students and Young Scientists Youth and Science, the section “Modern Problems of Mathematics and Computer Science”, 2011. Paper “Practical implementation of an elementary recognition method for processing paper forms”, award, 2nd place.
- “National (All-Russian) Conference on Artificial Intelligence” (KII-2010), Tver (city), 2010. Participant-student.
- XVI Inter-regional Theoretical and Practical Student Conference in Economics “Problems of Economics” (Siberian Federal University), 2009. Paper “New smart services for our university”, award, 3rd place.
- Fellowship from the bank MDM Bank for talent students. Prize-winner.
- Rating at Siberian Federal University, 2009. Absolutely first (by average points) among approx. 8000 1st- and 2nd-year students according to the official university rating of freshmen classes.
- All-Russian Contest “Business in Innovative Technologies” (“BIT”), regional stage, Tomsk (city), 2009. Co-winner (project “System of Electronic Mark-book for Schools”), award, 1st place (“BIT” is a Russian analog for “MIT Entrepreneurship Competition”).
- “Startup Point” contest on “Seliger 2009”. Co-winner (project “System of Electronic Mark-book for Schools”), award.
- All-Russian Summer School “Seliger 2009” for Youth Innovators, section for young researchers, Tver (city). Certificate, diploma of the “Open Innovation University”.
- Exhibition “Scientific and Technical Youth Creativity”, Moscow, 2009. Delegated from the university, certificate “Innovative products”.
- XV Inter-regional Theoretical and Practical Student Conference in Economics “Problems of Economics” (Siberian Federal University), 2009. Paper “Innovative Economic Growth in Russia: problems and perspectives“, award, 1st place within the section and within the whole conference (shared).
- Youth Summer (Winter, Autumn, Spring) Computer Science Projects Schools for Schoolchildren, 2006–2008. Took part as programmer and then as leader of team (totally 9 times), 1st places in contests, award (individual and team championships).
- A software patent (Russia) for the software product “System of Electronic Mark-book for Schools Proverim.com”, 2008. Patent certificate.
- Grant from Krasnoyarsk company “Iskra” (specialises in information technologies), 2008. Prize-winner.
- Summer school “Innovative enterprise” on “TIM Birusa 2008”. Certificate.
- Regional activity for initiative young people “TIM Birusa 2008”, section of young researchers. Co-winner on Krasnoyarsk youth economic forum (projects contest) with the project “System of Electronic Mark-book for Schools”, “top-member” (2nd among more than 2000 undergraduate and graduate students according to the ranking), participant of “bonus days”, (3 gold, 1 silver and 1 bronze medals) in the individual championship.
- Regional programmers challenge “Soft-Parade 2008”. Winner, award, 1st place.

- Regional computer programs contest “Soft-Parade 2008”. Co-author, co-leader, software engineer of the project “City Internet Beauty Contest and City Literary Contest”, award.
- Regional computer programs contest “Soft-Parade 2008”. Co-author, co-leader, programmer of the project “System of Electronic Mark-book for Schools”, award.
- Regional Youth Scientific Challenge “Youth and Science”, 2008. Winner, award “Ultimate Lead” (section “IT-projects”), 1st place.
- Prize (award) of the Krasnoyarsk mayor for young gifted persons, 2008. Prize-winner.
- 5th Krasnoyarsk Economic Forum, 2008. Participant (scholarship from the Government of Krasnoyarskij krai region).
- Regional IT-championship, First Siberian IT-festival, Krasnoyarsk, 2007. Award “Internet technologies”, 3rd place among students and young professionals.
- Regional programming contest “Soft-Parade 2007”. Lead and software engineer of the project “Internet Publishing Manager (site)”, award, 3rd place.
- All-Russian Contest of School Newspapers and Magazines, 2007. Award (individual championship for the personal activity), award for our gymnasium newspaper (member of the editorial board).
- Practical training “Internet Journalism” in the journal “Education in Lyceums and Gymnasiums”, Moscow, 2007. Certificate “Information technologies in journalism”.
- Regional computer programs contest “Soft-Parade 2006”. The project “Electronic Kiosk-Seller”, winner, award, 2nd place.
- Krasnoyarsk City District Scientific and Practical Conference for schoolchildren, 2005. The project “Mind and Neural Networks“, award.
- Regional computer programs contest “Soft-Parade 2005”. Author and programmer of the project “Computer Agent for IRC-system”, award, 3rd place.

PAPERS, POSTERS,
AND REPORTS

- Paper “Inference Over Programs That Make Predictions”, Yura Perov. The International Conference on Probabilistic Programming, 2018.
- Paper “A comparative study of artificial intelligence and human doctors for the purpose of triage and diagnosis”, Salman Razzaki, Adam Baker, Yura Perov, Katherine Middleton, Janie Baxter, Daniel Mullarkey, Davinder Sangar, Michael Taliencio, Mobasher Butt, Azeem Majeed, Arnold DoRosario, Megan Mahoney, Saurabh Johri. arXiv, June 2018.
- Paper “A Universal Marginalizer for Amortized Inference in Generative Models”, Laura Douglas, Iliyan Zarov, Konstantinos Gourgoulis, Chris Lucas, Chris Hart, Adam Baker, Maneech Sahani, Yura Perov, Saurabh Johri. NIPS 2017 Workshop on Advances in Approximate Bayesian Inference.
- Master’s Thesis “Applications of Probabilistic Programming”, Oxford, 2016. <http://arxiv.org/abs/1606.00075>
- Paper “Spreadsheet Probabilistic Programming”, 2016, arXiv. <http://arxiv.org/abs/1606.04216>
- Paper “Nonparametric Bayesian Models for Unsupervised Activity Recognition and Tracking”, Neil Dhir, Yura Perov and Frank Wood, International Conference on Intelligent Robots and Systems (IROS 2016).
- Paper “Automatic Sampler Discovery via Probabilistic Programming and Approximate Bayesian Computation”, Yura Perov and Frank Wood, the International Conference on Artificial General Intelligence 2016 (Springer).

- Abstract and poster “Data-driven Sequential Monte Carlo in Probabilistic Programming”, Yura Perov, Tuan Anh Le and Frank Wood, NIPS Workshop on Black Box Learning and Inference (2015).
- Bachelor’s Thesis on Generative Probabilistic Programming (in Russian language), Krasnoyarsk, Cambridge (US), Oxford, 2014. <http://arxiv.org/abs/1601.07224>
- Abstract and poster “Learning probabilistic programs”, Yura Perov and Frank Wood, NIPS Probabilistic Programming Workshop (2014).
- Talk abstract “Probabilistic programming and automatic programming” in “Approaches and Applications of Inductive Programming” (Dagstuhl Seminar 13502). Dagstuhl Reports. ISSN 2192-5283. Edited by Sumit Gulwani, Emanuel Kitzelmann, and Ute Schmid. URL <http://drops.dagstuhl.de/opus/volltexte/2014/4507>.
- Paper “Venture: a higher-order probabilistic programming platform with programmable inference”, Vikash Mansinghka, Daniel Selsam, Yura Perov. <http://arxiv.org/abs/1404.0099>
- Paper “Approximate Bayesian Image Interpretation using Generative Probabilistic Graphics Programs”, Vikash K. Mansinghka, Tejas D. Kulkarni, Yura N. Perov, Joshua B. Tenenbaum. NIPS 2013. **Accepted for full oral presentation (acceptance rate: 20/1420 = 0.014%)**. (Also arXiv:1307.0060)
- Paper “Gait optimization for Roombots modular robots — Matching simulation and reality”, Rico Möckel, Yura Perov, Anh The Nguyen, Massimo Vespignani, Stéphane Bonardi, Soha Pouya, Alexander Spröwitz, Jesse van den Kieboom, Frédéric Wilhelm, Auke Jan Ijspeert. IROS 2013. **(acceptance rate: 903/2089 = 43%)**.
- Abstract/Poster “Efficient, Envelope-based Multicore Markov Chain Inference for Church”, Yura Perov and Vikash Mansinghka. NIPS 2012 “Probabilistic Programming: Foundations and Applications” Workshop.
- Poster “Locomotion of Modular Robots: Optimizing Modular Robots Locomotion in Simulation and Applying Results to Real-World Robot”, Yura Perov, Rico Möckel, Massimo Vespignani, Soha Pouya, Stéphane Bonardi, Auke Jan Ijspeert. Switzerland, EPFL, Summer research program symposium. **Best poster award**.
- Paper “System description manual of the project ”System of Electronic Mark-book for Schools Proverim.com”” (in Russian), Yura Perov. Intelligent Systems and Technologies: State-of-the-art and Outlook. Proceedings of International Summer School-Conference in Artificial Intelligence for students and young researches. Tver, 2011. **Best student paper award**.
- Review paper “Innovative Economic Growth in Russia: problems and perspectives” (in Russian), Yura Perov and Tatiana V. Kovaleva. Modern problems of the economics. Collected articles of the XV Interregional Theoretical and Practical Student Conference in Economics, Siberian Federal University, Krasnoyarsk, 2009. **Best student paper award**.
- Paper “Planning the operation of web server processes” (in Russian), Yura Perov. Collected articles of X International FAMET’2010 Conference. Krasnoyarsk, 2011.
- Paper “New smart services for our university” (in Russian), Yura Perov and Natalia G. Makuha. Modern Problems of the Economics. Collected articles of the XVI Interregional Theoretical and Practical Student Conference in Economics, Siberian Federal University, Krasnoyarsk, 2010.
- “Introduction to Publicator” (tech manual for the internet service) (in Russian), Tatiana B. Michailova, Yura Perov et al. Special appendix for the journal “Education in Lyceums and Gymnasiums”, 2007.

Talk “Bringing Probabilistic Programming to the People” at Alan Turing Institute’s Probabilistic Programming Workshop (C72) at the British Library (4th and 5th of February 2016).

Talk “Automatic Programming and Probabilistic Programming”. Dagstuhl Seminar, “Approaches and Applications of Inductive Programming”, the 8—11th of December, 2013.

“Generative probabilistic programming: applications and new ideas” (2014).

The talk was given at

- in Microsoft Research (Cambridge, UK, hosted by Dr. John Winn).
- in Cambridge University, within the series of Machine Learning seminars at the Cambridge University Engineering Department (hosted by Prof. Zoubin Ghahramani).

“Explorations in probabilistic programming: generative probabilistic graphics programming and new research directions”, 2013.

The talk was given at

- Prof. Ryan Adams’ group’s meeting (Harvard),
- Prof. Rastislav Bodík’s group’s meeting (University of California, Berkeley),
- to Prof. Stuart Russell’s students (University of California, Berkeley),
- at Prof. Tom Griffiths’ group’s meeting (University of California, Berkeley),
- and Prof. Percy Liang’s group’s meeting (Stanford),
- in Microsoft Research (Bangalore, India, hosted by Dr. Aditya Nori).
- at Oxford University’s Robotics seminar.