# Aijun Bai

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## Qualifications

Strong programming and software engineering compatibilities

Rich **Artificial Intelligence**, **automated planning**, **machine learning** and **robotics** experience

Excellent interpersonal, communicating, writing, analytical and research skills

Reliable, versatile, cooperative, good team member or independent worker

## Experience

**University of California at Berkeley**, EECS, Berkeley, CA, United States, 2015.4 - present
Postdoc Researcher
Working on metareasoning approach for real-time online planning
Supervised by Prof. Stuart Russell

**Alibaba Inc.**, Taobao.com, Hangzhou, Zhejiang, China, 2014.12 - 2015.3
Algorithm Engineer
Working on semi-Markov process based user behaviour modelling
Supervised by Dr. Zhao Li

**Carnegie Mellon University**, CSD, Pittsburgh, PA, United States, 2013.12 - 2014.10
Visiting Research Scholar
Working on particle filtering based multi-object tracking for CoBot
Supervised by Prof. Manuela Veloso and Prof. Reid Simmons

**University of Science and Technology of China**, CSD, Hefei, Anhui, China, 2009.9 - 2014.11
Research Assistant
Working on RoboCup soccer and hierarchical planning for large Markov decision process
Supervised by Prof. Xiaoping Chen

## Education

**Ph.D.**, Computer Science, University of Science and Technology of China, 2009.9 - 2014.11

**B.E**, Computer Science, University of Science and Technology of China, 2005.9 - 2009.6

## Honors and Awards

Ali Star of Alibaba Inc., 2013.

**World Champion** of Soccer Simulation 2D, RoboCup 2013, Eindhoven, The Netherlands, Jul 2013.

**Best Paper Nominee** of RoboCup 2012 International Symposium, Mexico City, Mexico, Jun 2012.

**First Place** of Soccer Simulation 2D Free Challenge, RoboCup 2012, Mexico City, Mexico, Jun 2012.

**World Champion** of Soccer Simulation 2D, RoboCup 2011, Istanbul, Turkey, Jul 2011.

**World Champion** of Soccer Simulation 2D, RoboCup 2009, Graz, Austria, Jun 2009.

## Scholarships

Post-doctoral Fellowship of UC Berkeley, 2014.

Early Researcher Support of ICAPS, 2014.

Travel Award of NIPS Foundation, 2013.

Glarun Scholarship of CETC-14, 2013.

Scholarship of China Scholarship Council (CSC), 2013.

Kwang-Hua Scholarship of USTC, 2012.

Aegon-Industrial Responsibility Scholarship of USTC, 2012.

Outstanding Student Scholarship of USTC, 2005, 2006, 2007, 2008.

## Selected Publications

[1] **Aijun Bai**, Feng Wu, and Xiaoping Chen. Online planning for large markov decision processes with hierarchical decomposition. *ACM Trans. Intell. Syst. Technol.*, 6(4):45:1–45:28, July 2015.

[2] **Aijun Bai**, Feng Wu, Zongzhang Zhang, and Xiaoping Chen. Thompson sampling based Monte-Carlo planning in POMDPs. In *Proceedings of the 24th International Conference on Automated Planning and Scheduling (ICAPS 2014)*, Portsmouth, United States, 2014.

[3] **Aijun Bai**, Reid Simmons, Manuela Veloso, and Xiaoping Chen. Intention-aware multi-human tracking for human-robot interaction via particle filtering over sets. In *2014 AAAI Fall Symposium Series*, 2014.

[4] **Aijun Bai**, Feng Wu, and Xiaoping Chen. Towards a principled solution to simulated robot soccer. In *RoboCup-2012: Robot Soccer World Cup XVI*, volume 7500 of *Lecture Notes in Artificial Intelligence*. Springer Verlag, Berlin, 2013.

[5] **Aijun Bai**, Feng Wu, and Xiaoping Chen. Bayesian mixture modelling and inference based Thompson sampling in Monte-Carlo tree search. In *Advances in Neural Information Processing Systems 26 (NIPS 2013)*, pages 1646–1654. 2013.

[6] **Aijun Bai**, Feng Wu, and Xiaoping Chen. Online planning for large MDPs with MAXQ decomposition. In *Proc. of the Autonomous Robots and Multirobot Systems workshop (at AAMAS 2012)*, Jun 2012.

[7] **Aijun Bai**, Xiaoping Chen, Patrick MacAlpine, Daniel Urieli, Samuel Barrett, and Peter Stone. Wright Eagle and UT Austin Villa: RoboCup 2011 simulation league champions. In *RoboCup-2011: Robot Soccer World Cup XV*, volume 7416 of *Lecture Notes in Artificial Intelligence*. Springer Verlag, Berlin, 2012.

## Technical Skills

Proficiency in C/C++, Python, BASH and LaTeX coding languages

Rich Qt, Boost, ODPS, SQL, ROS, OpenRAVE, Eigen and NumPy experience

Experienced Linux/UNIX administration and programming skills

Familiar with agent, database, web, cloud computing and robotics development

## References

Additional references available upon request.