Alan Malek

Curriculum Vitae

Education

2009-Present	**Ph.D. Electrical Engineering and Computer Science**, *University of California*, Berkeley. Thesis Advisor: Peter Bartlett Thesis Topic: Sequential Decision Making
2009-2013	**M.A. Statistics**, *University of California*, Berkeley.
Fall 2012, Fall 2013	**Visiting Student**, *Queensland University of Technology*, Brisbane, Australia.
2005-2009	**M.S. Electrical Engineering**, *Stanford University*, Palo Alto.
2005-2009	**B.S. Mathematics**, *Stanford University*, Palo Alto. minor in Physics

Publications

- W. Kotłowski, W. Koolen, A. Malek. Online Isotonic Regression. *Proceedings of the Conference on Learning Theory (COLT 2016)*, June 2016.

- W. Koolen, A. Malek, P. Bartlett, and Y. Abassi. Minimax Time Series Prediction. *Advances in Neural Information Processing Systems (NIPS) 28*, December 2015.

- P. Bartlett, W. Koolen, A. Malek, E. Takimoto, M. Warmuth. Minimax fixed-design linear regression. In *Proceedings of the Conference on Learning Theory (COLT 2015)*, volume 40, June 2015.

- Y Abassi, P. Bartlett, X. Chen, A. Malek. Large-scale Markov decision problems with KL control cost. In *Proceedings of the 32nd International Conference on Machine Learning (ICML 2015)*, volume 37, pages 1053-1062, June 2015.

- W. Koolen, A. Malek, P. Bartlett. Efficient minimax strategies for square loss games. In *Advances in Neural Information Processing Systems (NIPS) 27*, pages 3230-3238, December 2014.

- Y. Abbasi-Yadkori, P. Bartlett, and A. Malek. Linear programming for large-scale Markov decision problems. In *Proceedings of the 31st International Conference on Machine Learning (ICML 2014)*, pages 496-504, 2014.

Preprints

- Y. Abbasi-Yadkori, P. Bartlett, and A. Malek. Linear programming for large-scale Markov decision problems. *arXiv:1402.6763 [math.OC]*, 2014.

Talks

July 2016	**Minimax Strategies for Square Loss Games**, *Artificial Intelligence and Reinforcement Learning Seminar*, University of Alberta.
August 2016	**Minimax Strategies for Square Loss, Linear Regression, and Time-series Prediction**, *Machine Learning Seminar*, MIT.
April 2016	**Keynote**, *Harker Research Symposium*.

Teaching

Spring 2016   **CS281b/Stat241b TA**, *UC Berkeley*, Statistical Learning Theory II.
- Statistical risk bounds, minimax game theoretic algorithms, neural networks, kernel methods, ensemble methods
- Responsible for: homework and solutions, grading

Fall 2015   **CS281a/Stat241a TA**, *UC Berkeley*, Statistical Learning Theory.
- Graphical models, general inference, statistical estimation
- Responsible for: discussion section, homework and solutions, grading

Spring 2014   **CS281b/Stat241b TA**, *UC Berkeley*, Statistical Learning Theory II.
- Machine learning, Online prediction, kernel methods, boosting, etc.
- Responsible for: grading, office hours, homework solutions

Spring 2011   **EE20N TA**, *UC Berkeley*, Signals and Systems.
- Responsible for: weekly lab (using Labview), discussion sections, office hours

Spring 2011   **EE20N TA**, *UC Berkeley*, Signals and Systems.
- Responsible for: weekly lab (using Labview), discussion sections, office hours

Service

2014-2016	**Reviewer**, *NIPS*.
2016	**Subreviewer**, *Conference on Learning Theory*.
2015-2016	**AI/ML Admissions Committee**, *UC Berkeley EECS Department*.
2014-2015	**AI/ML Admissions Committee**, *UC Berkeley EECS Department*.
2015	**Student Laptop Committee**, *UC Berkeley EECS Department*.
2010-2011	**Social Chair**, *UC Berkeley EE Graduate Student Assembly*.
Fall 2008 - Spring 2009	**Stanford Ceramics Club**, *Founder, President, Studio Manager*.

Work Experience

May 2015 -January 2016   **Data Science Intern**, *Adobe Research*.
- Developed sequential hypothesis testing techniques with theoretical and empirical evaluations
- Extended work to multiple sequential hypothesis tests
- Two patents in submission

May 2014 - September 2014   **Data Science Intern**, *Upwork*.
- Modeled client potential value and intervention susceptibility
- Worked on algorithms to improve job/freelancer matching

June 2008 - September 2008	**Science Intern**, *Achor Intelligence*. ○ Developed tools to identify click fraud in online advertisement data
June 2007 - September 2007	**Engineering Intern**, *Intuitive Surgical*. ○ Simulated and optimized kinematics of prototype manipulator
June 2006 - September 2006	**Engineering Intern**, *Intuitive Surgical*. ○ Built and tested electrical system for prototype product

References

Peter Bartlett
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Interests

- Rock Climbing
- Cooking

- Competitive Powerlifting
- Photography