

# Yunus Saatçi

---

## CONTACT INFORMATION

Computational and Biological Learning  
Department of Engineering, Division F  
University of Cambridge  
Cambridge, CB2 1PZ, UK

*Telephone:* (+44)7817-322150  
*E-mail:* ys267@cam.ac.uk  
*Web:* <http://mlg.eng.cam.ac.uk/yunus>

## EDUCATION

### **University of Cambridge, October 2007-present**

Ph.D. Candidate in Machine Learning  
Supervisor: Dr. Carl Edward Rasmussen  
Advisor: Professor Zoubin Ghahramani

### **University of Edinburgh, September 2006-August 2007**

M.Sc., Informatics (Learning from Data specialism)  
Awarded Distinction  
Thesis Title: “Bayesian Hierarchical Clustering of Gaussian Processes for Transfer Learning.”  
Supervisor: Dr. Amos Storkey  
Advisor: Professor Christopher Williams

### **University of Cambridge, October 2002-June 2005**

B.A., Computer Science  
Awarded upper-second-class honours  
Dissertation Title: “Active Appearance Models for Facial Expression Recognition.”  
First-class honours awarded for dissertation

### **International Baccalaureate, September 2000-June 2002**

Higher-level subjects: Mathematics, Physics, Chemistry  
Standard-level subjects: English, Turkish, History  
Awarded 42 out of 45 points

## PROFESSIONAL EXPERIENCE

### **QuantMachines Ltd., *Founder*, September 2008-present**

Founded a consulting company providing machine learning solutions to the quantitative finance industry. Previous clients include the Quantitative Trading Group of Royal Bank of Scotland (RBS-QTG) and Ceptron HK Ltd. Work was focussed on the high-frequency trading domain and included:

- Design and analysis of candidate trading signals,
- Design and implementation of efficient Bayesian policy search and policy gradient algorithms, fundamental to the profitability of the trading engine,
- Experimentation and modelling for the purposes of discovering profitable passive trading (i.e., market making) strategies.

### **The Royal Bank of Scotland (RBS), *Internship*, June 2008-September 2008**

Internship in the Quantitative Trading Group (QTG). Work focussed extensively on the design and analysis of candidate trading signals.

### **Cambridge University Computer Laboratory, *Research Assistantship*, September 2005-September 2006**

Research assistant under the supervision of Dr. Richard Gibbens. Designed and analyzed statistical models of road-traffic data, and assessed inference on a dataset collected using motorway loop devices.

## PUBLICATIONS

Saatci, Y. **Scalable Inference for Structured Gaussian Process Models**, *PhD. thesis, University of Cambridge (submitted)*, 2011. Expected to result in two additional publications in *Journal of Machine Learning Research (JMLR)*.

Saatci, Y., Turner, R., Rasmussen, C.E. **Gaussian Process Change Point Models**, *International Conference on Machine Learning (ICML)*, 2010.

Turner, R., Saatci, Y., Rasmussen, C.E. **Adaptive Bayesian Sequential Changepoint Detection**, *Neural Information Processing Systems (NIPS): Temporal Segmentation Workshop*, 2009.

Van Gael, J., Saatci, Y., Teh, Y.W., Ghahramani, Z. **Beam-sampling for the Infinite Hidden Markov Model**, *International Conference on Machine Learning (ICML)*, 2008.

Gibbens, R., Saatci, Y. **Data, Modelling and Inference in Road-traffic Networks**, *Royal Society Phil. Trans. A*, 2008.

Saatci, Y., Town, C. **Cascaded Classification of Gender and Facial Expressions using Active Appearance Models**, *Proc. International Conference on Automatic Face and Gesture Recognition*, 2006.

## COMPUTER SKILLS

- Proficiency in the following programming languages: MATLAB/Octave, C/C++, Java, ML.
- Operating Systems: Unix/Linux, Mac OSX.

## HONORS AND AWARDS

Funded by Engineering and Physical Sciences Research Council (EPSRC) studentship for Ph.D. and M.Sc. studies

## RESEARCH INTERESTS

- Nonparametric Bayesian models, focusing on Gaussian Processes.
- Algorithms for applying Gaussian Processes to large datasets.
- Algorithms for scaling flexible modelling techniques to large datasets.
- Nonlinear and nonstationarity time-series modelling using Bayesian Inference, focussing on deterministic approximate inference techniques.
- Bayesian Reinforcement Learning and Control Theory.