

Education:

Fall 2007 – Fall 2011, PhD in Machine Learning, University of Cambridge, UK

Thesis: “Gaussian Processes for State Space Models and Change Point Detection”

Fall 2004 – Winter 2007, Bachelor of Science in Computer Engineering with Statistics minor, Crown College Honors and School of Engineering Highest Honors, University of California, Santa Cruz

Summer 2001 – Spring 2004, Cabrillo College, Aptos, California

Overall Cabrillo GPA = 3.9/4.0, Overall UC GPA = 3.9/4.0

Work Experience:

Machine Learning Researcher at Northrop Grumman Corporation, August 2012 – Present

High Frequency Trading Researcher at Winton Capital Management, September 2011 – June 2012

Academic Machine Learning Researcher for DataPath Inc, May 2008 – July 2011

Summer Intern in Machine Learning for ad analysis, Google, June 2008 – August 2008

Machine Learning Financial Modeling for startup Clare Bridge Capital, Oct 07 – May 08

Reader for Professor Herbie Lee in computer experiments, April 2007 – June 2007

Lab Tutor for Andrea Di Blas in computer architecture, September 2006 – December 2006

Reader/Tutor for Professor Manduchi in stochastic analysis, January 2006 – March 2006

Summer Computer Engineering Intern, Altera Corporation, July 2005 – September 2005

Selected Coursework:

CMPS 101 Abstract Data Types

CMPS 111 Operating Systems

CMPE 150 Computer Networks

AMS 206 Bayesian Statistics

AMS 27, 147 Engineering Mathematics

Math 114 Option Pricing

CMPE 12, 110 Computer Architecture

CMPE 121/L Microprocessor Design

CMPE 264 Computer Vision

CMPE 123A/B Senior Design Project

4F10 Statistical Pattern Processing

4F13 Machine Learning

Languages:

C/C++, Java, Python

SQL, Sawzall, q

HTML with CSS and JavaScript

Verilog

Applications:

MATLAB, R Statistics Package

Quartus II and SOPC Builder

LaTeX

SVN

Operating Systems:

Windows 7

Solaris/Linux/Minix

Organizations:

Cambridge Union Society (CUS)

UCSC SOE Honor Society (Tau Beta Pi) executive council, Secretary & Treasurer

AGS (Alpha Gamma Sigma) Cabrillo honor society

Awards:

Northrop Grumman R&D 2013 honor roll

Competed in MLSP competition for stock market prediction, 2nd place, May 2008

Selected for UCSC transfer student brochure, 2008 – 2009

Plantronics academic merit recognition award, May 2006

Competed in All-Cal snowboarding rail jam, 3rd place, December 2005

Publications:

Ryan Turner, Steven Bottone, and Bhargav Avasarala. [A Complete Variational Tracker](#). In *Advances in Neural Information Processing Systems*, pages 496-504, 2014.

Ryan Turner. [Supervised Bayesian Online Change Point Detection](#). In *BayLearn*, 2014.

Ryan Turner, Steven Bottone, and Clay J. Stanek. [Online Variational Approximations to non-Exponential Family Change Point Models: With Application to Radar Tracking](#). In *Advances in Neural Information Processing Systems*, pages 306-314, 2013.

Marc P. Deisenroth, Ryan Turner, Marco Huber, Uwe D. Hanebeck, and Carl E. Rasmussen, [Robust Filtering and Smoothing with Gaussian Processes](#), In *IEEE Transactions on Automatic Control*, volume 57, pages 1865-1871, 2012.

Ryan Turner, Steven Bottone, and Zoubin Ghahramani. [Fast online anomaly detection using scan statistics](#). In Samuel Kaski, David J. Miller, Erkki Oja, and Antti Honkela, editors, *Machine Learning for Signal Processing (MLSP 2010)*, pages 385-390, Kittilä, Finland, August 2010.

- Later extended as a chapter in “Handbook of Scan Statistics”, edited by Joseph Glaz and Markos V. Koutras. In press.

Ryan Turner and Carl Edward Rasmussen. [Model based learning of sigma points in unscented Kalman filtering](#). In Samuel Kaski, David J. Miller, Erkki Oja, and Antti Honkela, editors, *Machine Learning for Signal Processing (MLSP 2010)*, pages 178-183, Kittilä, Finland, August 2010.

- Later selected to appear in journal *Neurocomputing* (2011).

Yunus Saatçi, Ryan Turner, and Carl Edward Rasmussen. [Gaussian process change point models](#). In *27th International Conference on Machine Learning*, pages 927-934, Haifa, Israel, June 2010.

Ryan Turner, Marc Peter Deisenroth, and Carl Edward Rasmussen. [State-space inference and learning with Gaussian processes](#). In Yee Whye Teh and Mike Titterton, editors, *13th International Conference on Artificial Intelligence and Statistics*, volume 9 of *W&CP*, pages 868-875, Chia Laguna, Sardinia, Italy, May 2010. *Journal of Machine Learning Research*.

Ryan Turner, Marc Peter Deisenroth, and Carl Edward Rasmussen. [System identification in Gaussian process dynamical systems](#). In Dilan Görür, editor, *NIPS Workshop on Nonparametric Bayes*, Whistler, BC, Canada, December 2009.

Ryan Turner, Yunus Saatçi, and Carl Edward Rasmussen. [Adaptive sequential Bayesian change point detection](#). In Zaïd Harchaoui, editor, *NIPS Workshop on Temporal Segmentation*, Whistler, BC, Canada, December 2009.

Organizing:

Co-organized workshop “Software Engineering for Machine Learning” at NIPS 2014 with Xavier Amatriain and Joaquin Quiñonero Candela.