

Anup Aprem

Machine Learning Research Group, University of Oxford, UK
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AREAS OF EXPERTISE

- Hidden Markov models.
- Data Analytics & Machine Learning.
- Bayesian Non-parametric learning.
- Inverse learning

EDUCATION & RESEARCH

- 2018 – 2020 **Post Doctoral Research Associate in Applied Machine Learning**
University of Oxford, UK
- 2014 – 2018 **PhD:** Statistical signal processing & Machine Learning
University of British Columbia, Vancouver, Canada
- 2010 – 2012 **M.E. in Signal Processing**
PASS WITH DISTINCTION
Indian Institute of Science, Bangalore
- 2003 – 2007 **B. Tech. in Electronics and Communication**
PASS WITH DISTINCTION
College of Engineering, Trivandrum

COURSES

- PH.D. Statistical signal processing, Machine Learning, Microeconomics, Randomized algorithms, Optimization in graphs, Sparse methods in statistics, Compressed sensing.
- MASTERS Optimization, Random process, Matrix theory, Non-linear signal processing, DSP system design, Detection and estimation theory, Signal & Image processing, Wireless communication, Adaptive signal processing, Spectrum analysis, Time-Frequency analysis, Digital communication, Array signal processing

WORK EXPERIENCE

Teaching Assistant (Fall 2015, Spring 2015, Fall 2016, Fall 2017)
University of British Columbia
Stochastic Signals & Systems

Senior DSP Engineer & DSP Engineer (Sept 2012 – Aug, 2014 & July 2007 – July 2010)
Analog Devices, Bangalore

Design, development and implementation of signal processing components for wireless, mobile and control systems

SELECT PUBLICATIONS

“Optimal pricing in black box Stackelberg games using revealed preference feedback & Application to pricing in electricity markets” A. Aprem and S. Roberts (Submitted)

“A Bayesian optimization approach to compute the Nash equilibria of potential games using bandit feedback” A. Aprem, S. Roberts in **Computer Journal**, 2019

“Multiple Stopping Time POMDPs: Structural Results and Application in Interactive Advertising in Social Media” V. Krishnamurthy, A. Aprem, S. Bhatt in **Automatica**, 2018

“Engagement dynamics and sensitivity analysis of YouTube videos” W. Hoiles, A. Aprem, V. Krishnamurthy in **IEEE Transactions on Knowledge & Data Engineering**, 2017

“Utility Change Point Detection in Online Social Media: A Revealed Preference Framework” A. Aprem, V. Krishnamurthy in **IEEE Transactions on Signal Processing**, 2017

“PAC Algorithms for Detecting Nash Equilibrium Play in Social Networks: From Twitter to Energy Markets” W. Hoiles, V. Krishnamurthy, A. Aprem in **IEEE Access**, 2016

“Transmit Power Control Policies for Energy Harvesting Sensors With Retransmissions” A. Aprem, C. R. Murthy, N. B. Mehta in **IEEE Journal of Selected Topics in Signal Processing**, 2013.

GRANTS

- NSERC ENGAGE: Sensitivity of YouTube popularity to meta-data

MANAGEMENT

- Academic Vice President (May 2015 - Apr 2016): Organizing IEEE lectures, job fairs and workshops
- Team Lead (Jul 2009-Jul 2010): Verification of the signal processing chain on computer vision.
- Supervision of M.Tech industry thesis (June 2013-Dec 2013): 1