

BARIŞ KURT

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EDUCATION

- **09/2000 - 06/2005** : Undergraduate at Bogazici University, Dept. of Computer Engineering
 - Senior Project: Implementation of a Multi-Agent Collaboration Algorithm on Sony Aibo Robots
- **09/2006 - 06/2009** : Graduate at Bogazici University, Dept. of Computer Engineering
 - Participated in RoboCup 2007 four-legged robot soccer tournament in Atlanta and several other tournaments in Europe. Worked on multi-agent collaboration and localization.
 - Thesis: Imitation of Human Arm Movements by a Humanoid Robot, Using Monocular Vision
- **09/2009 - current** : PhD at Bogazici University, Dept. of Computer Engineering
 - Research focus on Bayesian machine learning, graphical models, monte carlo methods, time series analysis, anomaly detection
 - Worked on a European FP7 project ([Meviso](#)) on mobile network evolution, in collaboration with Ericsson Turkey. The work consisted of classifying the applications in the network without payload inspection.
 - Worked on mobile network statistics analysis project with the Turkish mobile operator TurkTelekom. This work consists of estimating high-speed network statistics via sampling.
 - Currently working on a VOIP network attack detection project, in collaboration with [Netas](#), as a part of [Nova V-GATE](#) project.
 - Expecting graduation at Summer 2017.

TEACHING EXPERIENCE

Teaching assistant at Bogazici University between 2010-2015. The courses that I have assisted includes

- Discrete Mathematics
- Data Structures and Algorithms
- Analysis of Algorithms
- Formal Languages and Automata Theory
- Introduction to Probability and Statistics
- Bayesian Statistics and Machine Learning

PROFESSIONAL EXPERIENCE

- **06/2014 - 09/2014**: Software engineering intern at [Google Research](#) in New York.
 - Experimenting with variants of LSTM recurrent networks for improving acoustic speech recognition.
- **01/2009 - 06/2009**: Software engineer in an unmanned aerial vehicle project by [Vestel Defence Industries](#).
 - Modelled and simulated the landing gear system of a UAV in Matlab & Simulink.
 - Simulated an autopilot system.

LIST OF PUBLICATIONS

• JOURNALS

- B. Kurt, C. Yıldız, T. Y. Ceritli, B. Sankur, A. T. Cemgil, "A Bayesian Change Point Model for Detecting SIP-based DDoS Attacks", Digital Signal Processing, 2016, (in review)
- C. Yıldız, B. Kurt, T. Y. Ceritli, B. Sankur, A. T. Cemgil, "A Real-Time SIP Network Simulation and Monitoring System", SoftwareX, 2016 (in review)
- Y. C. Sübakan, B. Kurt, A. T. Cemgil, B. Sankur, "[Probabilistic sequence clustering with spectral learning](#)", Digital Signal Processing, 2014
- U. Şimşekli, O. Sönmez, B. Kurt, A. T. Cemgil, "[Combined Perception and Control for Timing in Robotic Music Performances](#)", EURASIP Journal on Audio, Speech, and Music Processing, 2012

• INTERNATIONAL CONFERENCES

- T. Y. Ceritli, B. Kurt, C. Yıldız, B. Sankur, A. T. Cemgil, "A Dictionary Learning Based Anomaly Detection Method for Network Traffic Data", ICML 2016 Anomaly Detection Workshop.
- B. Kurt, E. Zeydan, U. Yabas, I. A. Karatepe, G. K. Kurt and A. T. Cemgil, "A Network Monitoring System for High Speed Network Traffic", IEEE International Conference on Sensing, Communication and Networking, 2016
- C. Yıldız, M. Semerci, Y. T. Ceritli, B. Kurt, A. T. Cemgil and B. Sankur, "Change Point Detection for Monitoring SIP Networks", European Conference on Networks and Communications, EuCNC 2016,
- C. Subakan, B. Kurt, A.T. Cemgil, B. Sankur, "[Spectral Learning for Mixture of Markov Models](#)" In NIPS 2013, Workshop on Spectral Learning.
- B. Kurt, A.T. Cemgil, M. Mungan, N. Polat, A. Ozdogan, E. Saygun "[Network Management without Payload Inspection: Application Classification via Statistical Analysis of Bulk Flow Data](#)" In Proceedings of the Future Network & Mobile Summit, 2012
- B. Kurt, A.T. Cemgil, M. Mungan, E. Saygun, "[A Bayesian Nonparametric Clustering Application on Network Traffic Data](#)" In NIPS 2011, Workshop on Bayesian Nonparametrics.
- N. E. Özkucur, B. Kurt, H. L. Akin., "[A collaborative multi-robot localization method without robot identification](#)" In RoboCup 2008 Symposium, 2008.

• NATIONAL CONFERENCES

- B. Kurt, C. Yıldız, T. Y. Ceritli, M. Yamac, M. Semerci, B. Sankur, A. T. Cemgil, "A Probabilistic SIP Network Simulation System", 24th IEEE Conference on Signal Processing and Communications Applications (SIU), Zonguldak, Turkey, 2016
- C. Yıldız, T. Y. Ceritli, B. Kurt, B. Sankur, A. T. Cemgil, "Attack Detection in VOIP Networks Using Bayesian Multiple Change-Point Models", 24th IEEE Conference on Signal Processing and Communications Applications (SIU), Zonguldak, Turkey, 2016
- B. Kurt, A. T. Cemgil, "[Bayesian Model Selection of Stochastic Blockmodels for Random Graphs](#)", 19th IEEE Conference on Signal Processing and Communications Applications (SIU), Antalya, Turkey, 2011

OPEN SOURCE PROJECTS

- **pml**: An easy to use C++ matrix library for fast prototyping machine learning algorithms.
- **pnet**: Network sniffer and analysis library, written in C++.
- **boun-sim**: A VOIP network simulation tool, written in Python.