

# HAMED BONAB

College of Information and Computer Sciences  $\diamond$  University of Massachusetts Amherst, MA  
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## RESEARCH INTERESTS

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Information Retrieval, Natural Language Processing, Machine Learning

## EDUCATION

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### Ph.D. in Computer Science

(2017 - Present)

College of Information and Computer Sciences, **UMass Amherst**, MA, USA

Center for Intelligent Information Retrieval (CIIR)

Research Topic: “Cross-Language Information Retrieval for Low-Resource Languages”

Supervisor: *Prof. James Allan*

### M.Sc. in Computer Engineering

(2014 - 2016)

Computer Engineering Department, **Bilkent University**, Ankara - Turkey

Bilkent Information Retrieval Group (BillR)

Thesis Topic: “Geometrically Optimum and Online Weighted Ensemble Classifier (GOOWE) on Evolving Data Streams”

Supervisor: *Prof. Fazli Can*

### B.Sc. in Computer Engineering - Software

(2008 - 2013)

Computer Engineering Department, Iran University of Science and Technology (**IUST**), Tehran - Iran

Last 60 Credits GPA: 17.01 /20

## PUBLICATIONS

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- [1] Ö. Gözüaçık, A. Büyükçakır, **H. Bonab**, and F. Can, “Unsupervised concept drift detection with a discriminative classifier,” *CIKM’19*, 2019.
- [2] **H. Bonab**, J. Allan, and R. Sitaraman, “Simulating CLIR translation resource scarcity using high-resource languages,” *ICTIR’19*, 2019.
- [3] **H. Bonab**, M. Aliannejadi, J. Foley, and J. Allan, “Incorporating hierarchical domain information to disambiguate very short queries,” *ICTIR’19*, 2019.
- [4] S. Sarwar, **H. Bonab**, and J. Allan, “A multi-task architecture on relevance-based neural query translation,” *ACL’19*, 2019.
- [5] **H. Bonab**, and F. Can, “Less is more: A comprehensive framework for the number of components of ensemble classifiers,” *IEEE TNNLS*, 2019. [Impact factor: **11.683**]
- [6] **H. Bonab**, H. Zamani, E. Learned-Miller, and J. Allan, “Citation worthiness of sentences in scientific reports,” in *Proc. of SIGIR’18*. ACM, 2018, pp. 1061–1064.
- [7] A. Büyükçakır, **H. Bonab**, and F. Can, “A novel online stacked ensemble for multi-label stream classification,” in *Proc. of CIKM’18*. ACM, 2018, pp. 1063–1072.
- [8] **H. R. Bonab** and F. Can, “GOOWE: Geometrically optimum and online-weighted ensemble classifier for evolving data streams,” *ACM TKDD*, vol. 12, no. 2, p. 25, 2018.
- [9] **H. R. Bonab** and F. Can, “A theoretical framework on the ideal number of classifiers for online ensembles in data streams,” in *Proc. of CIKM’16*. ACM, 2016, pp. 2053–2056.

## EMPLOYMENT

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- Dataminr, Research Internship** May 2019 - Aug 2019
  - Artificial Intelligence (AI) team, NY - USA
- UMass Amherst, Research Assistant** Sept 2017 - Present
  - Center for Intelligent Information Retrieval (CIIR), MA - USA
- Bilkent University, Teaching and Research Assistant** Jan 2014 - Dec 2016
  - Bilkent Information Retrieval Group (BillIR), Ankara - Turkey

## ACADEMIC SERVICES & ACHIEVEMENTS

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- Passed PhD candidacy with distinction, 2019
- A program committee member for the International Conference on Information and Knowledge Management (**CIKM**), 2017 and 2018
- Reviewer for ACM Transactions on Knowledge Discovery from Data (**TKDD**), IEEE Transactions on Neural Networks and Learning Systems (**TNNLS**), Journal of the Association for Information Science and Technology (**JASIST**), Neural Computing and Applications (**NCAA**), IEEE Transactions on Industrial Informatics

## TECHNICAL STRENGTHS

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**Programming Languages** Python, Java, C++, Matlab, PHP, HTML, JavaScript, Android  
**Tools and Libraries** PyTorch, TensorFlow, Galago, Lemur, MOA

## R&D PROJECTS

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- Cross-Language Information Retrieval for Low-Resource Languages** Sept 2017 - Present
  - Machine Translation for English Retrieval of Information in Any Language (MATERIAL), IARPA Funded Project, UMass Amherst
- Ensemble Methods for Evolving Data Streams** Jan 2014 - Jan 2016
  - Concept drifting stream processing using ensemble methods, Bilkent University
- Intelligent Tutoring Systems (ITS)** Feb 2013 - Sept 2013
  - Educational Data Mining and Machine Learning Systems, B.Sc. Thesis project, IUST University
- Android Programming** Jun 2013 - Jul 2013
  - Prized Android Application called DangiDongi, Cafebazaar.ir

## LANGUAGE PROFICIENCY

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**English** (Advanced), **Persian** (Native), **Turkish** (Advanced), **Azerbaijani** (Native), **Arabic** (Basic)

## EXTRA CURRICULAR ACTIVITIES

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Oil Painting, Nasta'liq Calligraphy, Table Soccer, Rock Climbing