Muhammed Yavuz Nuzumlalı

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SUMMARY
I am a Ph.D. student at Yale University focused on Natural Language Processing (NLP) and Machine Learning (ML) areas as well as being an open-source software contributor and believer.

EDUCATION

Yale University,   **New Haven, U.S.**

- *Ph.D. in Computer Science,*   August 2017 - Present
  - Advisor : Dragomir Radev

Bogazici University,   **Istanbul, Turkey**

- *M.S. in Computer Engineering,*   September 2011 - January 2015
  - Thesis : Analyzing Stemming And Sentence Simplification Methodologies For Turkish Multi-Document Text Summarization
  - Advisor : Arzucan Özgür
- *B.S. in Computer Engineering,*   September 2006 - June 2011

PUBLICATIONS
Nuzumlalı, M. Y., & Özgür, A. (2014). Analyzing Stemming Approaches for Turkish Multi-Document Summarization. *In Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing (EMNLP)* (pp. 702-706)

THESIS
Nuzumlalı, M. Y.. Analyzing Stemming And Sentence Simplification Methodologies For Turkish Multi-Document Text Summarization. *2015, M.S. Thesis*

TECHNOLOGY SKILLS
Proficient : Objective-C, Python
Competent : Ruby, Java
Familiar : C++, C, Swift, Perl, MATLAB, Octave

RESEARCH EXPERIENCE

***Ph.D. Student* at Yale University**   **August 2017 - Present**

- Developing NLP models to understand unstructured Electronic Health Records (EHR) data.

***Ph.D. Student* at Bogazici University**   **January 2016 - August 2017**

- Performed research on online matrix factorization techniques and their usage on the analysis of time series data.

***M.S. Student* at Bogazici University**   **September 2011 - January 2015**

- Developed the first Multi-Document Summarization (MDS) system for Turkish.

- Created the first public multi-document summarization dataset for Turkish.
  - Analyzed in-detail the effects of using different stemming policies on summary quality. This study is accepted to EMNLP 2014 conference.
- Developed the first sentence simplification system for Turkish.
  - Applied simplification as a preprocessing step in MDS problem, analyzed the effects on summary quality.

Member of AILab at **Bogazici University**   **June 2010 - June 2011**

- Attended to RoboCup Rescue Simulation League with RoboAKUT team. We became the 5th best team in the competition among 16 teams.
- Proposed and implemented a bidirectional A* search algorithm for searching of humans by agents in the competition. The new algorithm reduced the average search time by approximately 40%.

PROFESSIONAL EXPERIENCE   *Senior Software Engineer* at **Inomera Research** **January 2013 - February 2017**

- *Lead Machine Learning Engineer at Netmera*   June 2016 - February 2017

  - Led the research project, which aimed to automatically analyze a huge amount of user behavior data collected from mobile applications, and make inferences and recommendations with the help of ML and NLP techniques. Developed PoC models for following problems:
    * Selecting the audience automatically for a campaign to be delivered
    * Clustering people according to their behaviors and personal attributes, and automatically proposing keywords for a campaign message targeting a particular cluster according to their common interests.
- *Technical leader of the iOS team*

  - Rewrote Netmera iOS SDK from scratch. It has great test coverage, and all testing and deployment process is automated via continuous integration. It received great customer reception because of its API quality and robustness.
  - Was responsible for mentoring engineers, reviewing codes, deciding code standards, assuring best practices are followed.
- Led the company during the adoption of software development standards like code reviewing, testing, maintaining coverage, continuous integration, continuous delivery, and automatic code analysis.
- Pioneered the migration from central version control systems like *CVS* and *Subversion* to *git* in the whole company.

iOS Developer at **Arneca Technology**   **July 2011 - January 2013**

- Developed a few interactive magazine applications, an EPUB reader application, and a template application used to robustly publish 30+ applications for different events organized around the world.

OPEN SOURCE EXPERIENCE

Core Team Member at CocoaPods   **October 2015 - August 2017**

- Reduced "pod search" command's response time for full text search by 90% by implementing an inverted document index for search.
- Reduced "pod install" command's completion time by a factor of 6 for some specific cases where same set of exact file paths are included by multiple pods. This is achieved by adding a cache data structure to reduce repetitive disk access to same folders, and using sets instead of arrays for a task which requires an intersection operation over two long arrays having lots of common values.
- Made significant contributions to the project by adding lots of new features and fixing hundreds of issues reported by users.

CERTIFICATES   *Coursera*

- Machine Learning (Stanford University)   April 2015
- Mining Massive Datasets (Stanford University)   March 2015

OTHER SKILLS   *Spoken Languages*

- Turkish (Native)
- English (Proficient)

REFERENCES

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