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## Research Interests

- Natural Language Processing, Machine Learning, Recommender Systems, Computer Science Education

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## Education

- Spring 2019 (expected) **Ph.D. Computer Science, University of Massachusetts Amherst, Amherst, MA.**
- Advisor: Hong Yu
  - GPA: 3.88/4.0
  - Relevant Courses: Machine Learning, Deep Learning, Applied Information Theory, Explanatory and Advisory Systems, Computation Theory
- 06/2015 **M.S. Computer Science, DePaul University, Chicago, IL.**
- Graduated with Distinction
  - GPA: 3.9/4.0
  - Relevant Courses: Web Data Mining, Neural Networks and Machine Learning, Artificial Intelligence, Computational Advertising
- 05/2011 **B.B.A. Information Technology Management, University of Notre Dame, South Bend, IN.**
- Minor: Irish Language and Literature
  - GPA: 3.6/4.0
  - Graduated Cum Laude

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## Professional Experience

- 09/2015 - **Research Assistant, BioNLP Group, Amherst, MA.**
- Present
- Conduct research in natural language processing and machine learning.
  - Develop and analyze new methods for evaluating machine learning systems.
  - Utilize the Amazon Mechanical Turk crowdsourcing platform to collect data.
- 06/2016 - **Intern, ESPN Advanced Technology Group, Bristol, CT.**
- 08/2016
- Designed and implemented a new summarization API for ESPN content.
  - Researched distributed representations of ESPN articles for use as features in NLP tasks.
- 09/2015 - **Teaching Assistant, Introduction to Computer Science, Amherst College, Amherst, MA.**
- 12/2015
- Professor: Crystal Valentine
  - Hold weekly office hours, assist students during weekly lab session, and grade weekly lab programming assignments
  - Prepared and gave two lectures during the semester.
- 11/2013 - **Software Developer, Eze Software Group, Chicago, IL.**
- 05/2015
- Designed and built a notification system to alert customers when trade orders are completed via email and text message.
  - Designed and built an administrative dashboard for our case management system that filtered and displayed case information for 1000+ cases across 30+ clients.
  - Designed and built search functionality using Lucene.NET to allow users to search 400,000 legacy cases.

07/2011 - **Advisory Sr. Associate**, KPMG, Philadelphia, PA, Chicago, IL.

- 10/2013
  - o Coordinated and performed General IT Control and application control testing for large and mid-size companies across various industries as part of IT Financial Statement Audit Support teams.
  - o Developed an automated user access testing application to identify terminated employees across application access lists.

## Publications

- o T. Munkhdalai, **J. Lalor**, H. Yu, **Citation Analysis with Neural Attention Models**, *LOUHI 2016: The Seventh International Workshop on Health Text Mining and Information Analysis*, Austin, Texas, USA, November 2016.
- o **J. Lalor**, H. Wu, H. Yu, **Building an Evaluation Scale using Item Response Theory** *EMNLP 2016: Conference on Empirical Methods in Natural Language Processing*, Austin, Texas, USA, November 2016.
- o C. Miller, A. Settle, **J. Lalor**, **Learning Object-Oriented Programming in Python: Towards an Inventory of Difficulties and Testing Pitfalls**. *SIGITE 2015: The Special Interest Group for Information Technology Education Conference*, Chicago, Illinois, October 2015
- o A. Settle, **J. Lalor**, T. Steinbach, **Evaluating a Linked-Courses Learning Community for Development Majors**. *SIGITE 2015: The Special Interest Group for Information Technology Education Conference*, Chicago, Illinois, October 2015
- o A. Settle, **J. Lalor**, T. Steinbach, **A Computer Science Linked-Courses Learning Community**. *ITiCSE 2015: The 20th Annual Conference on Innovation and Technology in Computer Science Education*. Vilnius, Lithuania, July 2015
- o A. Settle, **J. Lalor**, T. Steinbach, **Reconsidering the Impact of CS1 on Novice Attitudes**. *SIGCSE 2015: The ACM Special Interest Group on Computer Science Education*. Kansas City, Missouri, March 2015

## Invited Talks

- o John P. Lalor. Building Evaluation Scales for NLP using Item Response Theory. *UMass CICS Machine Learning and Friends Lunch series*, 12/08/2016.

## Skills

- o Programming Languages: Python, R, Java, C#, SQL, Javascript
- o Tools: Git, AngularJS, Flask, Django, Amazon Mechanical Turk, L<sup>A</sup>T<sub>E</sub>X

## Academic Awards

- o Recipient: DePaul University Graduate Assistantship
- o Member: DePaul UPE Honor Society
- o Dean's List 4 semesters at Notre Dame

## Service

- o DePaul University Graduate Ambassador for prospective students
- o DePaul Tutor for undergraduate students as part of my Graduate Assistantship