John P. Lalor

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Research Interests

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

Education

Spring 2019 (expected) **PhD 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 **Masters of Science - 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 **Bachelor of Business Administration - IT Management, University of Notre Dame**, *South Bend, IN*.
- Minor: Irish Language and Literature
- GPA: 3.6/4.0
- Graduated Cum Laude

Professional Experience

09/2015 - Present **Research Assistant**, *BioNLP Group*, Amherst, MA.
- 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 - 08/2016 **Intern**, *ESPN Advanced Technology Group*, Bristol, CT.
- 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 - 12/2015 **Teaching Assistant**, *Introduction to Computer Science, Amherst College*, Amherst, MA.
- 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 - 05/2015 **Software Developer**, *Eze Software Group*, Chicago, IL.
- 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 - 10/2013 **Advisory Sr. Associate**, *KPMG*, Philadelphia, PA, Chicago, IL.

- 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.
- Developed an automated user access testing application to identify terminated employees across application access lists.

Publications

- 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.
- 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.
- 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
- 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
- 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
- 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

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

Skills

- Programming Languages: Python, R, Java, C#, SQL, Javascript
- Tools: Git, AngularJS, Flask, Django, Amazon Mechanical Turk, LaTeX

Academic Awards

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

Service

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