jesselingeman

research scientist

contact

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education

2012–present **PhD - Computer Science** University of Massachusetts Amherst
BioNLP Lab. Advisor: Hong Yu

2008–2012 **Masters** of Science **- Computer Science** Courant Institute of Mathematical Sciences at New York University
Network Inference in Molecular Biology - a hands-on framework
This thesis was an exploration of approaches to gene network inference. Explored the benefits of combining results from a variety of algorithms.

2005–2008 **Bachelor** of Arts **- Political Science** Western Michigan University
Specialization in Game Theory

experience

2013–present **BioNLP Lab** UMass Amherst
Research scientist
Developing methods to incorporate information from related networks and exploring learning-to-rank methods for related document retrieval.

2010-2012 **Databrary** New York University
Developer
Lead developer on the open source behavioral coding software Datavyu.

2009–2012 **Infant Action Lab** New York University
Research Scientist
Research includes studies of motor learning, development, and motor control in human and rhesus macaque infants.

2010–2011 **Plant Genomics Lab** New York University
Volunteer Researcher
Developed genetic algorithms for optimal hyper-parameter search on large computing clusters. Work has been adapted to search for optimal parameters for protein folding algorithms.

2009-2010 **Columbia University College of Physicians and Surgeons** Columbia University
Volunteer Researcher
Used SVMs and HMMs to measure flight-path deviation of surgeons training on a DaVinci Laparoscopic Surgical Robot.

service

2013-2014 **GEO Representative**
Computer Science Department GEO representative for Spring 2013 and Fall 2014.

2013 **Program Committee Member**
IEEE ICDM'13 Data Mining in Biomedical Informatics and Healthcare Workshop

2010 **Courant Splash**
A day of activities to raise interest of computer science in high school students Talk and live demonstration to high school students about the history and current state of robots. Interactive demonstration of programming and controlling an iRobot Roomba with OpenCV and Python.

publications

conference proceedings

Learning to Rank Scientific Articles from the Crowd
Jesse M Lingeman, Hong Yu
Under Review at *Association for the Advancement of Artificial Intelligence*, 2016

Rethinking Document Retrieval for Scientific Literature: A Learning to Rank Approach
Jesse M Lingeman, Hong Yu
To be presented at *American Medical Informatics Association Symposium (16% acceptance rate)*, 2015

ADETAG: A Supervised Machine Learning based tagger for Adverse Events in EMR Notes
Polepalli Balaji Ramesh, Jesse M Lingeman, Hong Yu
To be presented at *NLP Working Group at American Medical Informatics Association Symposium*, 2015

UMass at BioASQ 2014: Figure-inspired text retrieval
Jesse M Lingeman, Laura Dietz
2nd BioASQ Workshop: A challenge on large-scale biomedical semantic indexing and question answering, 2014

article in peer-reviewed journal

Gene regulatory networks in plants: learning causality from time and perturbation.
Gabriel Krouk, Jesse Lingeman, Amy Marshall Colon, Gloria Coruzzi, Dennis Shasha
Genome Biology *14.6 (2013) p. 123. 2013*

Go naked: diapers affect infant walking.
Whitney G Cole, Jesse M Lingeman, Karen E Adolph
Developmental Science *15.6 (Nov. 2012) pp. 783–790. 2012*

How do you learn to walk? Thousands of steps and dozens of falls per day.
Karen E Adolph, Whitney G Cole, Meghana Komati, Jessie S Garciaguirre, Daryaneh Badaly, Jesse M Lingeman, Gladys L Y Chan, Rachel B Sotsky
Psychological Science *23.11 (2012) pp. 1387–1394. 2012*

Developmental studies of visual-motor integration: A comparative approach
Lynne Kiorpes, Gardiner Trapp, Amelie Pham, Jesse Lingeman, Kasey Soska, Karen Adolph, Claes Hofsten, Kerstin Rosander
Journal of Vision *10.7 (Aug. 2010) pp. 1078–1078. 2010*

books

Network Inference in Molecular Biology - a hands-on framework
Jesse M Lingeman, Dennis Shasha
Springer, 2012

podium presentations

Learning to walk.
Jesse M Lingeman, Karen E Adolph
Talk given at Dynamic Walking, Jena, Germany, 2011, 2011

Developmental studies of visual-motor integration: A comparative approach.
Lynne Kiorpes, Gardiner Trapp, Amelie Pham, Jesse M Lingeman, Kasey Soska, Karen Adolph, Claes Hofsten, Kerstin Rosander
Talk given at Vision Science Society, Naples, Florida, 2010

poster presentations

Boosting inference of protein-protein interactions using author collaboration networks
Jesse M Lingeman, Qing Zhang, Hong Yu
International Society for Molecular Biology, 2014

Effects of diapers on infant walking.
Whitney G Cole, Jesse M Lingeman, Karen E Adolph
The International Society for Posture and Gait, 2012

Bimanual gait: The development of human brachiation.
Whitney G Cole, Jesse M Lingeman, Gladys Chan, Danielle Bendicksen, Beatrix Vereijken, Karen E Adolph
The International Society for Posture and Gait, 2012

Monkeying around: Development of human brachiation.
Whitney G Cole, Jesse M Lingeman, Gladys Chan, Elizabeth Quon, Danielle Bendicksen, Beatrix Vereijken, Karen E Adolph
The Society for Research in Child Development, 2011

Walking skill but not walking experience predicts spontaneous walking in infants.
Whitney G Cole, Meghana Komati, Megan McGwier, Jesse M Lingeman, Karen E Adolph
The Society for Research in Child Development, 2011

Walk this way: Developmental changes in spontaneous walking.
Meghana Komati, Samira Iravani, Megan McGwier, Jesse M Lingeman, Whitney G Cole, Karen E Adolph
The Society for Research in Child Development, 2011

Go naked: Effects of diapers on infant walking.
Whitney G Cole, Jesse M Lingeman, Meghana Komati, Karen E Adolph
The International Society of Developmental Psychobiology, 2010

Step by step: Development changes in spontaneous walking.
Meghana Komati, Samira Iravani, Megan McGwier, Jesse M Lingeman, Whitney G Cole, Karen E Adolph
The International Society of Developmental Psychobiology, 2010

Visually guided reaching: Parallels between human and non-human primates.
Jesse M Lingeman, Amelie Pham, Kasey Soska, Karen E Adolph, Kerstin Rosander, Claes Hofsten, Lynne Kiorpes
The International Society of Developmental Psychobiology, 2010

Hidden markov models and identification of surgical flight-path deviation with the DaVinci robot.
Avinash Burra, Jesse M Lingeman, Kuri Gill, Scott Belsley
The Society of American Gastrointestinal and Endoscopic Surgeons, 2009