

# Adam Jardine

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## Appointments

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2016– Assistant Professor. Department of Linguistics, Rutgers University.

## Education

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2016 **PhD, Linguistics.** University of Delaware.

Dissertation title: *Locality and non-linear representations in tonal phonology*. Committee chair: Dr. Jeffrey Heinz

2013 **MA, Linguistics & Cognitive Science.** University of Delaware.

2006 **BA, Linguistics (Honors).** University of New Hampshire.

## Grants/Fellowships/Awards

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**NSF grant for Workshop on Formal Language Theory in Linguistics.** *January 2020.* (Co-PI.) PI: Jane Chandlee; Co-PIs: Adam Jardine, Eric Bakovic, Kevin McMullin. Award amount: \$18,490.00. NSF Award #1936797.

**Postdoctoral Fellowship.** *Fall 2016–Fall 2018.* (Declined.) Japan Society for the Promotion of Science.

**Professional Development Award.** *Spring 2016.* University of Delaware travel award.

**University Dissertation Fellowship.** *Fall 2015–Spring 2016.* University of Delaware.

**Professional Development Award.** *Fall 2015.* University of Delaware travel award.

**University Competitive Graduate Research Fellowship.** *Fall 2014–Spring 2015.* University of Delaware.

## Peer-reviewed Journal Articles

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(Under review.) **Adam Jardine.** Learning local and non-local interactions in tone.

(Under revision.) **Adam Jardine,** Nicholas Danis, and Luca Iacoponi. A formal investigation of Q-Theory in comparison to Autosegmental Representations.

2019. **Adam Jardine**. Computation also matters. *Phonology* 36(2), pp. 341–350.
2019. Jane Chandlee and **Adam Jardine**. Autosegmental Input Strictly Local functions. *Transactions of the Association for Computational Linguistics* 7, pp. 157–168.
2019. **Adam Jardine**. The expressivity of autosegmental grammars. *Journal of Language, Logic, and Information* 8(1), pp. 9–54.
2018. Jane Chandlee, Jeffrey Heinz, and **Adam Jardine**. Input Strictly Local opaque maps. *Phonology* 35(2), pp. 1–35.
2017. **Adam Jardine**. The local nature of tone-association patterns. *Phonology* 34(2), pp. 385–405.
2016. **Adam Jardine**. Computationally, tone is different. *Phonology* 33(2), pp. 247–283.
2016. **Adam Jardine** and Jeffrey Heinz. Learning Tier-based Strictly 2-Local languages. *Transactions of the Association for Computational Linguistics* 4, pp. 87–98.
2016. Konstantinos Karydis, Prasanna Kannappan, Herbert G. Tanner, **Adam Jardine**, and Jeffrey Heinz. Resilience through Learning in Multi-Agent Cyber-Physical Systems. *Frontiers in Robotics and AI* 3(36).
2015. **Adam Jardine**, Angeliki Athanasopoulou, Kristian, and Peter Cole. Banyaduq prestopped nasals: Synchrony and diachrony. *Oceanic Linguistics* 54(2), pp. 548–578.

## Paper-reviewed Conference Proceedings Papers

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2019. Jane Chandlee and **Adam Jardine**. Quantifier-free Least Fixed Point Functions for Phonology. *Proceedings of the 16th Meeting on the Mathematics of Language (MOL 2019)*, pp. 50–62.
2019. Nick Danis and **Adam Jardine**. Q-Theory Representations and Autosegmental Representations are logically equivalent. *Proceedings of the Society for Computation in Linguistics 2019*, volume 2, article 5.
2017. **Adam Jardine**. On the logical complexity of autosegmental representations. In Kanazawa, Makoto, Philippe de Groote, and Mehrnoosh Sadrzadeh, eds., *Proceedings of the 15th Meeting on the Mathematics of Language (MOL 2017)*, pp. 22–35. ACL.
2017. **Adam Jardine** and Kevin McMullin. Efficient Learning of Tier-based Strictly  $k$ -Local Languages. Frank Drewes, Carlos Martín-Vide, and Bianca Truthe (eds.), *Proceedings of Language and Automata Theory and Applications, 11th International Conference*, pp. 64–76. *Lecture Notes in Computer Science* series. Springer.
2016. Kevin Leahy, Prasanna Kannappan, **Adam Jardine**, Jeffrey Heinz, Bert Tanner, and Calin Belta. Integration of Deterministic Inference with Formal Synthesis for Control under Uncertainty. *Proceedings of the 2016 American Control Conference*, pp. 4829–4834. IEEE.
2015. **Adam Jardine** and Jeffrey Heinz. A concatenation operation to derive autosegmental graphs. In Kuhlman, Mark, Makoto Kanazawa and Gregory M. Kobele, *Proceedings of the 14th Meeting on Mathe-*

*matics of Language (MOL 2015)*, pp. 139–151. ACL.

2014. **Adam Jardine**, Jane Chandlee, Rémi Eryaud, and Jeffrey Heinz. Very efficient learning of structured classes of subsequential functions from positive data. In Clark, Alex, Makoto Kanazawa and Ryo Yoshinaka, eds., *JMLR Workshop and Conference Proceedings 34, Proceedings of the 12th International Colloquium on Grammatical Inference*, pp. 94–108.

## Abstract-reviewed Conference Proceedings Papers

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2019. Nathan Koser, Christopher Oakden, and **Adam Jardine**. Tone Association and Output Locality in Non-Linear Structures. In Hout et al., eds, *Supplemental proceedings of the 2018 Annual Meeting on Phonology*. LSA.

2016. **Adam Jardine** and Jeffrey Heinz. Markedness constraints are negative: an autosegmental constraint definition language. *Proceedings of the 51st Annual Meeting of the Chicago Linguistic Society*.

2016. Jane Chandlee, **Adam Jardine**, and Jeffrey Heinz. Learning repairs for marked structures. *Proceedings of the 2014 Annual Meeting on Phonology*. LSA.

2016. **Adam Jardine**. Learning tiers for long-distance phonotactics. In Laurel Perkins et al., eds., *Proceedings of the 6th Conference on Generative Approaches to Language Acquisition North America (GALANA 2015)*, pp. 60–72. Somerville, MA: Cascadilla Proceedings Project.

2014. Jane Chandlee and **Adam Jardine**. Learning phonological mappings by learning Strictly Local functions. In Kingston, John, Claire Moore-Cantwell, Joe Pater, and Robert Staubs, eds., *Proceedings of the 2013 Meeting on Phonology*. LSA.

2014. **Adam Jardine**. Logic and the generative power of Autosegmental Phonology. In Kingston, John, Claire Moore-Cantwell, Joe Pater, and Robert Staubs, eds., *Supplemental Proceedings of the 2013 Meeting on Phonology*. LSA.

## Book chapters

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(Under contract.) Jane Chandlee and **Adam Jardine**. Phonology and computational modeling. To appear in Elan Dresher and Harry van der Hulst, eds., *the Handbook of the History of Phonology*. Oxford University Press.

(Under contract.) **Adam Jardine**. Autosegmental representations in Zigula and Shambaa. To appear in Jeffrey Heinz, ed., *Doing Computational Phonology*. Oxford University Press.

## Invited Talks

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### 2018

**Adam Jardine.** Comparing string representations to graph representations for phonological tone. Invited seminar talk, University of Helsinki. August 2, 2018.

### 2016

**Adam Jardine.** Expressivity and autosegmental representations. Stony Brook University *Frontiers* colloquium. December 12, 2016.

**Adam Jardine.** Locality and non-linear representations in tonal phonology. Invited colloquium talk. Rutgers Linguistics colloquium. February 19, 2016, Rutgers University.

**Adam Jardine.** Representation and logical characterizations of phonological well-formedness. Invited seminar talk. Rutgers Linguistics colloquium. February 18, 2016, Rutgers University.

**Adam Jardine** and Jeffrey Heinz. Local well-formedness constraints for non-linear phonology. University of Pennsylvania Common Ground Seminar. October 14, 2015.

### 2015

Jeffrey Heinz and **Adam Jardine.** Remarks on Autosegmental Representations. Berkeley Phonology Forum. May 2015, University of California, Berkeley. (Presented by Jeffrey Heinz.)

## Conference Presentations

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### 2019

Nathan Koser and **Adam Jardine.** "The complexity of optimizing over strictly local constraints". Talk. The 2019 Penn Linguistics Colloquium. March 23, 2019. (Presented by Nathan Koser.)

Nick Danis and **Adam Jardine.** Q-Theory Representations and Autosegmental Representations are logically equivalent. Talk. The 2019 meeting of the Society for Computation in Linguistics (SCiL 2019). January 8, 2019.

### 2018

Nathan Koser, Christopher Oakden, and **Adam Jardine.** Tone association and output locality in non-linear structures. Poster. The 2019 Annual Meeting on Phonology. October 6th, 2018. University of California San Diego, San Diego, California. (Presented by Nate Koser and Chris Oakden.)

Jane Chandlee, Jeffrey Heinz, **Adam Jardine**, and Jonathan Rawski. How the Structure of the Constraint Space Facilitates Learning. Talk. The Tenth North American Phonology Conference (NAPhCX). May 5, 2018. Concordia University, Montreal, Quebec, Canada. (Presented by Jonathan Rawski.)

Jane Chandlee and **Adam Jardine**. Computational Locality and Autosegmental Processes. Talk. The 54th Meeting of the Chicago Linguistic Society. April 27, 2018, Chicago, Illinois.

Nick Danis, Jeffrey Heinz, and **Adam Jardine**. How constraints refer to nothing: The correct notion of substructure for phonology. Poster. The 2018 Annual Meeting of the Linguistic Society of America. January 7, 2018, Salt Lake City, Utah.

## 2017

Nick Danis, Jeffrey Heinz, and **Adam Jardine**. The correct notion of substructure for phonology. Talk. The 11th Northeast Computational Phonology meeting (NECPHON). October 21, 2017, Stony Brook University, Stony Brook, New York. (Presented by Nick Danis.)

**Adam Jardine**. First-order definability as a constraint on phonological structure. Poster. The 2017 Annual Meeting on Phonology. September 15, 2017, New York University, New York, New York.

**Adam Jardine**. On the logical complexity of autosegmental representations. Talk. The 15th Meeting on the Mathematics of Language (MOL 2017). July 13, 2017, Queen Mary University of London.

Nick Danis, Eileen Blum, Luca Iacoponi, Hazel Mitchley, and **Adam Jardine**. A computational method for evaluating theories of phonological representation. Talk. The 53rd Meeting of the Chicago Linguistic Society. May 25–27, 2017, Chicago, Illinois.

**Adam Jardine** and Kevin McMullin. Efficient Learning of Tier-based Strictly  $k$ -Local Languages. Talk. Language and Automata Theory and Applications, 11th International Conference. March 6–9, 2017, Umeå, Sweden.

Jane Chandlee, Jeffrey Heinz, **Adam Jardine**, and Kevin McMullin. Modeling Long-distance Alternations with Tier-based Strictly Local Functions. Talk. The 2017 Annual Meeting of the Linguistic Society of America. January 7, 2017, Austin, Texas. (Presented by Jane Chandlee.)

## 2016

Kevin Leahy, Prasanna Kannappan, **Adam Jardine**, Jeffrey Heinz, Bert Tanner, and Calin Belta. Integration of Deterministic Inference with Formal Synthesis for Control under Uncertainty. Talk. The 2016 American Control Conference. July 7, 2016, Boston, Massachusetts. (Presented by Kevin Leahy.)

**Adam Jardine**. Local faithfulness constraints over correspondence structures. Poster. The 24th Manchester Phonology Meeting. May 26th–28th, 2016, University of Manchester.

Jane Chandlee and **Adam Jardine**. Logical characterizations of phonological patterns. Tutorial at the MFM 24 fringe meeting tutorial session on Computation and Learnability in Phonology. May 25, 2016, University of Manchester.

**Adam Jardine**. Graph pattern learning for long-distance phonotactics. Talk. The 9th North American Phonology Conference. May 7–8, 2016, Concordia University, Montreal.

**Adam Jardine**. Local correspondence in phonological transformations. Talk. 2016 University of Delaware Cognitive Science Graduate Student Conference. March 4, 2016, University of Delaware.

**Adam Jardine** and Jeffrey Heinz. Locality and learning over autosegmental representations. Talk. The 2016 Annual Meeting of the Linguistic Society of America. January 7, 2016, Washington, DC.

## 2015

Jeffrey Heinz, Hyun Jin Hwangbo, and **Adam Jardine**. Some implications of representing gradual oppositions directly. Talk. The ninth Northeast Computational Phonology meeting (NECPHON). November 7, 2015, University of Delaware, Newark, Delaware. (Presented by Jeffrey Heinz.)

**Adam Jardine**. Learning local constraints over autosegmental representations. Talk. The ninth Northeast Computational Phonology meeting (NECPHON). November 7, 2015, University of Delaware, Newark, Delaware.

**Adam Jardine** and Jeffrey Heinz. Well-formed tone mappings with local, inviolable surface constraints. Poster. The 2015 Annual Meeting on Phonology. October 10, 2015.

**Adam Jardine** and Jeffrey Heinz. A concatenation operation to derive autosegmental graphs. Talk. The 14th Meeting on Mathematics of Language. July 26, 2015. University of Chicago.

**Adam Jardine** and Jeffrey Heinz. Markedness constraints are negative: an autosegmental constraint definition language. Talk. The 51st annual meeting of the Chicago Linguistic Society. April 25, 2015, University of Chicago.

**Adam Jardine**. Representing and learning non-linear sound patterns in natural language. Poster. 2015 University of Delaware Graduate Research Forum. April 21, 2015, University of Delaware.

Jane Chandlee, Jeffrey Heinz, and **Adam Jardine**. Representing and Learning Opaque Maps with Strictly Local Functions. Talk. The 38th Generative Linguistics in the Old World colloquium (GLOW), special workshop on the implications of computation and learnability for phonological theory. April 15-18, 2015, Paris, France. (Presented by Jeffrey Heinz.)

**Adam Jardine** and Jeffrey Heinz. Negative and positive markedness constraints. Talk. 2015 University of Delaware Cognitive Science Graduate Student Conference. March 13, 2015, University of Delaware.

**Adam Jardine**. Learning tiers for long-distance phonotactics. Talk. The 6th biannual Generative Approaches to Language Acquisition - North America conference (GALANA). February 21, 2015, University of Maryland at College Park.

Jane Chandlee, Jeffrey Heinz, and **Adam Jardine**. Learning Opaque Mappings. Poster presentation. The 6th biannual Generative Approaches to Language Acquisition - North America conference (GALANA). February 19-21, 2015, University of Maryland at College Park.

## 2014

**Adam Jardine**. Representing and learning phonological tiers. Talk. The eighth Northeast Computational Phonology meeting (NECPHON). November 15, 2014, NYU, New York, New York.

Jane Chandlee, **Adam Jardine**, and Jeffrey Heinz. Learning repairs for marked structures. Poster. The 2014 Annual Meeting on Phonology. September 20, 2014, MIT, Boston, Massachusetts.

**Adam Jardine**, Jane Chandlee, Rémi Eryaud, and Jeffrey Heinz. Very efficient learning of structured classes of subsequential functions from positive data. Talk. The 12th International Colloquium on Grammatical Inference. September 17–19, Kyoto University, Kyoto, Japan. (Presented by Jeffrey Heinz.)

Jie Fu, Jeffrey Heinz, **Adam Jardine**, and Herbert G. Tanner. Perception-based grammatical inference for adaptive Systems. Presentation, works in progress section. The 12th International Colloquium on Grammatical Inference. September 17–19, Kyoto University, Kyoto, Japan. (Presented by Jeffrey Heinz.)

## 2013

**Adam Jardine** and Amanda Payne. Expanding StressTyp2: Integrating pitch accent and tone. Poster presentation. The Third International Conference on Phonetics and Phonology (3rd ICPP), December 20–22, 2013, National Institute for Japanese Language and Linguistics, Tachikawa, Japan.

Jane Chandlee and **Adam Jardine**. Learning phonological mappings by learning strictly local functions. The 2013 Annual Meeting on Phonology. November 10, 2013, University of Massachusetts, Amherst. (Presented by Jane Chandlee.)

**Adam Jardine**. Logic and the generative power of autosegmental phonology. Poster Presentation. The 2013 Annual Meeting on Phonology. November 10, 2013, University of Massachusetts, Amherst.

**Adam Jardine**. Computationally, tone is different. Talk. The seventh Northeast Computational Phonology meeting (NECPHON). October 26, 2013, MIT.

**Adam Jardine**. Refining the structure of genitive subject relative clauses in Japanese. Talk. 2013 University of Delaware Cognitive Science Graduate Student Conference. February 22, Newark, Delaware.

**Adam Jardine**, Angeliki Athanasopoulou and Peter Cole. Prestopped nasals in Banyaduq: issues in representation. Talk. 2013 Annual Meeting of the Linguistic Society of America. January 5–8th, Boston, Massachusetts.

## 2012

**Adam Jardine** and Amanda Payne. StressTyps and stress patterns: Merging linguistic databases. Poster presentation. University Delaware Conference on Stress and Accent, Nov. 29–Dec. 1st, 2012, Newark, Delaware.

**Adam Jardine** and Feng Ye. The mystery of nasal prelosion in Banyaduq: issues in representing complex segments. Poster presentation. 2012 University of Delaware Cognitive Science Graduate Student Conference, Feb. 17, Newark, Delaware.

## Funded Research Positions

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**Research Assistant.** *Fall 2013–Summer 2014.* Efficient Control Synthesis and Learning in Distributed Cyber-Physical Systems. National Science Foundation #1035577. PIs: Jeffrey Heinz (University of Delaware), Herbert Tanner (University of Delaware), and Calin Belta (Boston University).

**Research Assistant.** *Summer 2012 & 2013.* StressTyp2: A Database for Word Accentual Patterns in the World's Languages. NSF Grant #1123692. PIs: Jeffrey Heinz (University of Delaware) and Harry van der Hulst (University of Connecticut).

## Reviewing

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### Journals

Language (2019– )  
Natural Language and Linguistic Theory (2017– )  
Glossa (2017– )  
Journal of Logic and Computation (2017– )  
Phonology (2017– )  
Linguistic Inquiry (2016– )  
Journal of Language Modelling (2015– )  
NUSA: Linguistic studies of languages in and around Indonesia (2015)

### Book chapters

*The Handbook of the History of Phonology* (Elan Dresher and Harry van der Hulst, eds.) Oxford University Press.

### Conference Papers

North American Meeting of the Association for Computational Linguistics (NAACL) (2019)  
ACL Special Interest Group on Phonology and Morphology (SIGMORPHON) (2018)  
International Conference on Computational Linguistics (COLING) (2018)

### Conference abstracts

Annual Meeting on Phonology (2018,2019)  
North East Linguistics Society (2017,2018)  
Linguistic Society of America (2016, 2018)

### Grant Proposals

Social Sciences and Humanities Research Council of Canada (2018)



## Curriculum Development

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- 2018-2019: Developed undergraduate course for Computational Linguistics, Rutgers University.

## Teaching

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**Instructor.** 2016– Department of Linguistics, Rutgers University.

- Spring 2019 – Phonology Seminar (16:615:525)
- Fall 2018 – Selected topics in linguistics: Computational linguistics (1:615:471)
- Spring 2018 – Introduction to Linguistic Theory, Honors (1:615:201:H)
- Fall 2017 – Introduction to Linguistic Theory (1:615:201)
- Spring 2017, Spring 2018, Spring 2019 – Phonology II (16:615:521)
- Fall 2016 – Phonology III (16:615:522)
- Fall 2016, Fall 2017 – Qualifying Paper Workshop (16:615:690)

**Teaching Assistant.** 2011–2013. Department of Linguistics & Cognitive Science, University of Delaware.

- Spring 2013 – Linguistics 101: Introduction to Linguistics. Instructor.
- Fall 2012 – Linguistics 253: Laboratory Phonetics. Instructor: Angeliki Athanasopoulou.
- Spring 2012 – Linguistics 101: Introduction to Linguistics. Discussion section leader. Instructor: Timothy O'Neil.
- Fall 2011 – Linguistics 101: Introduction to Linguistics. Discussion section leader. Instructor: Satoshi Tomioka.

**English Teacher.** 2009–2011. Kaica Computer & Language School, Setagaya, Tokyo, Japan.

**Guest Lecturer.** 2008. Toyama College of Foreign Languages, Toyama City, Toyama, Japan.

**Assistant Language Teacher.** 2006–2009. Interac, Co., Ltd., Toyama City, Toyama, Japan

## Advising

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### PhD Dissertations, Chair

- Eileen Blum, Linguistics, Rutgers (PhD expected spring 2021.)

### PhD Dissertations, Co-chair

- Luca Iacoponi, Linguistics, Rutgers (Graduated fall 2018.)

**PhD Dissertations, Committee Member**

- Kristina Strother-Garcia, Linguistics & Cognitive Science, University of Delaware (expected graduation 2019)
- Shu-hao Shih, Linguistics, Rutgers (Graduated October 2018)

**Qualifying Papers, Co-chair**

- Yu Cao, Linguistics, Rutgers (Second qualifying paper)

**Qualifying Papers, Chair**

- Eileen Blum, Linguistics, Rutgers (Second qualifying paper)
- Christopher Oakden, Linguistics, Rutgers (Second qualifying paper)
- Nathan Koser, Linguistics, Rutgers (First qualifying paper; completed Summer 2018)

**Qualifying Papers, Committee Member**

- Tadjou Dine Mamadou, Linguistics, Rutgers (First qualifying paper)
- Christopher Oakden, Linguistics, Rutgers (First qualifying paper; completed spring 2018)
- Eileen Blum, Linguistics, Rutgers (First qualifying paper; completed spring 2018)
- Hazel Mitchley, Linguistics, Rutgers (Completed spring 2018)
- Morgan Moyer, Linguistics, Rutgers (Completed spring 2017)

**Senior Honors Theses**

- Zhe Si (Linguistics, Class of 2019)

**Service**

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**Rutgers University**

2018–2019. Member, Search committee for tenure-track assistant professor position.

2018. Member, Search committee for one year phonology visiting assistant professor position.

2018– Member, Department of Linguistics Graduate Recruitment Committee

2017– Faculty advisor, mathematical and computational linguistics reading group

2017– Member, 1 Spring Street Committee (University-wide committee)

2017 Organized Rutgers/Delaware/Haverford Computational Phonology Workshop (held at Rutgers Department of Linguistics)

2017– Faculty advisor, PhonX (Phonetics & phonology reading group)

2017. Member, Linguistics Senior Projects Evaluation Committee

2016– Undergraduate Program Committee, Department of Linguistics

## University of Delaware

2015. Student organizer for the Ninth Northeast Computational Phonology meeting (NECPHON 2015), University of Delaware.

2013–2014. Student representative on search committee for tenure-track faculty position in phonetics, UD Department of Linguistics & Cognitive Science.

2012–2014. Colloquium Committee, UD Department of Linguistics & Cognitive Science.

2013–2014. Treasurer, Linguistics Association of Delaware.

2013. Student organizing committee for the University of Delaware Workshop on Stress and Accent (Main organizers: Jeffrey Heinz and Harry van der Hulst).

2012–2013. New Student Liaison, Linguistics Association of Delaware.

## Honors/Memberships

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Member, Linguistic Society of America, 2012–2013, 2015–

Member, Phi Beta Kappa Honors Society. Inducted May, 2006.

Bridging Scholar, Spring 2005.

## Spoken Languages

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**English** (Native)

**Japanese** (Fluent, certified Level I, Japanese Language Proficiency Test, December 2008)

## Programming/Markup Languages

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Haskell, Ruby, Python, Java, Lisp, OCaml, PHP, MySQL, HTML,  $\text{\LaTeX}$