NATHANIEL WEIR

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EDUCATION

2019–Present **Johns Hopkins University**
Ph.D., Computer Science – Natural Language Processing
Advisor: Benjamin Van Durme

2015–2019 **Brown University**
Sc.B., Applied Mathematics & Computer Science, *magna cum laude* with Honors
Thesis: *Bootstrapping Generalization in Neural Text-to-SQL Semantic Parsing Models*
Advisors: Ugur Cetintemel, Carsten Binnig, and Ellie Pavlick

ACADEMIC INTERESTS

Natural language understanding, textual reasoning, grounded language learning, artificial intelligence, computational cognitive science

PUBLICATIONS

2020 **Nathaniel Weir**, Adam Poliak, and Benjamin Van Durme. Probing Neural Language Models for Human Tacit Assumptions. To appear in *Proceedings of the 42nd Annual Conference of the Cognitive Science Society.* https://arxiv.org/abs/2004.04877

2020 **Nathaniel Weir**, Prasetya Utama, Alex Galakatos, Andrew Crotty, Amir Ilkhechi, Shekar Ramaswamy, Rohin Bhusan, Nadja Geisler, Benjamin Hattasch, Steffen Eger, Ugur Cetintemel, and Carsten Binnig. DBPal: A Fully Pluggable NL2SQL Training Pipeline. In *Proceedings of SIGMOD Conference 2020.* https://dl.acm.org/doi/abs/10.1145/3318464.3380589

2018 Fuat Basik, Benjamin Hattasch, Amir Ilkhechi, Arif Usta, Shekar Ramaswamy, Prasetya Utama, **Nathaniel Weir**, Carsten Binnig and Ugur Cetintemel. DBPal: A Learned NL-Interface for Databases (Demo Paper). In *Proceedings of SIGMOD Conference 2018.* https://dl.acm.org/citation.cfm?id=3193562

2017 Prasetya Utama, **Nathaniel Weir**, Carsten Binnig, and Ugur Cetintemel. Voice-based Data Exploration: Chatting with your Database. In *Proceedings of 2017 workshop on Search-Oriented Conversational AI.* https://scai.info/papers/SCAI2017_EchoQuery.pdf

TALK

2018 *DBPal: A Learned NL-Interface for Databases.* Presented at IBM AI Systems Day in Boston, MA. Slides available from https://tinyurl.com/y8agscwh

AWARDS

2019   **Brown Computer Science Senior Award**
Award to undergraduate seniors for academic work and service to Brown CS department.

2019   **2019 SIGMOD Undergraduate Research Competition, 2nd place**
Prize for *Bootstrapping an End-to-End Natural Language Interface to Databases*

2019   **CRA Outstanding Undergraduate Researcher Award, Honorable Mention**
National award for undergraduates who show outstanding potential in an area of computing research.

2018   **Randy F. Pausch CS Undergraduate Summer Research Award**
Annual award for a single Brown undergraduate by the Brown CS Department. $10,000

2018   **NSF Travel Grant**
Grant to support travel and registration for the 2018 SIGMOD/PODS conference. $1,000

2017   **Karen T. Romer Undergraduate Teaching and Research Award**
Award for Brown undergraduates to support summer research with faculty. $3,500

TECHNICAL SKILLS

Languages	*Proficient:* Python, R, SQL, MATLAB, Java, Bash
	Comfortable: C/C++, Scala, Make, OCaml, Scheme, JavaScript
Tools	PyTorch, fairseq, OpenNMT, NumPy, pandas, MySQL
Misc.	Jupyter, Git/GitHub, RStudio, LaTeX

TEACHING EXPERIENCE

Fall 2018

Brown University
Teaching Assistant
CSCI1570 Design and Analysis of Algorithms
Instructor: Paul Valiant
Held hours and graded assignments.

Spring 2017,
Spring 2018

Brown University
Teaching Assistant
CSCI0220 Discrete Structures and Probability
Instructor: Caroline Klivans
Held hours and recitations, wrote and graded assignments.

INTERNSHIP

Summer 2016   The MITRE Corporation   Bedford, MA

                                 Innovation and Technology Co-op

                                 Explored recent technological products for use in professional collaborative work spaces. Designed system for calling out-of-office employees into meetings.

COURSEWORK

Undergraduate GPA: 3.95   *Graduate GPA:* 4.0

Natural Language Processing / Artificial Intelligence: Computational Semantics, Deep Learning for Dialog, Natural Language Processing, Machine Learning, Artificial Intelligence

Computational Cognitive Science: Computational Psycholinguistics, Logic in Language and Thought, Computational Cognitive Science

Mathematics: Computational Probability and Statistics, Information Theory, Computational Linear Algebra, Ordinary/Partial Differential Equations, Discrete Structures and Probability, Multivariate Calculus

Computer Science: Data Science, Probabilistic Algorithms, Sketching and Indexing, Prescriptive Analytics, Algorithms, Systems