

KIANTÉ D. BRANTLEY

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EDUCATION

University of Maryland, College Park

Ph.D. Computer Science

Fall 2016 – December 2022

Advisor: Dr. Hal Daumé III

Thesis: Expert-In-The-Loop for Sequential Decisions and Predictions

New York University

Visiting Student, Center of Data Science

Fall 2018 – December 2022

Hosted by: Dr. Kyunghyun Cho

University of Maryland, Baltimore County

M.S. Computer Science,

Fall 2015 – Spring 2016

Advisor: Dr. Tim Oates

Thesis: BCAP: A Pruning Technique to Reduce Overfitting

B.S. Computer Science

Fall 2013 – Spring 2015

Minor in Mathematics

The Community College of Baltimore County

A.A. Computer Science and A.A. Mathematics

Fall 2011 – Spring 2013

EMPLOYMENT

Cornell University, Postdoctoral Associate

February 2022 – August 2024

Mentored by: Thorsten Joachims

Microsoft Research, Summer Internship(s)

May 2021 – August 2021

Microsoft Research, Redmond

Mentored by: Yizhe Zhang, Michel Galley, Bill Dolan

Microsoft Research, Montréal

May 2020 – August 2020

Mentored by: Geoffrey J. Gordon and Soroush Mehri

Microsoft Research, NYC

May 2019 – August 2019

Mentored by: Miro Dudík and Hal Daumé III

Microsoft Research, NYC

May 2018 – August 2018

Mentored by: Miro Dudík and Hal Daumé III

US Department of Defense, Data Scientist

July 2010 – August 2017

Former Positions:

- Cyber Data Analyst:
- DevOps Engineer
- Software Engineer, Distributed Dataflow

- Software Engineer, Testing Engineer
- Software Engineer, Hadoop Engineer
- High School Work-Study, Summer Internship

Social Security Administration, Summer Internship	June 2010 – August 2010
Baltimore Convention Center, Waiter	March 2010 – June 2010
McDonald, Cashier	January 2010 – June 2010
Green House Cage, Prep Cook	June 2009 – September 2009 June 2008 – September 2008 June 2007 – September 2007

SCHOLARSHIPS/FELLOWSHIPS

Computing Research Association (CRA) Post-Doc Fellowship	2022
Ann G. Wylie Dissertation Fellowship	2021
Microsoft Dissertation Research Grant	2020
ACM SIGHPC/Intel Computational and Data Science Fellowships	2018
NSF Louis Stokes Alliance for Minority Participation Bridge to the Doctorate Program (LSAMP BD) Fellowship	2016
University of Maryland College Park Dean's Fellowship	2016
Department of Defense Graduate Fellowship	2015
Transfer-Scholarships in Information Technology and Engineering (T-SITE) Scholar	2013
Maryland Senators and Delegates Scholarship	2013
Transfer Student Alliance Scholarship	2013
Howard P. Rawlings Educational Assistance Grant	2013
CCBC Foundation General Scholarship	2013

AWARDS/HONORS

Spotlight talk, Empirical Methods in Natural Language Processing	2023
Spotlight talk, International Conference on Learning Representations	2023
Spotlight talk, International Conference on Learning Representations	2020
2nd place, The New York Academy of Sciences Star Talks	2020
Top Reviewer, Empirical Methods in Natural Language Processing	2020
Sloan Research Fellow	2017 – 2019

PUBLICATIONS

Conference Papers

1. **Kianté Brantley**, Zhichong Fang, Sarah Dean, Thorsten Joachims
Ranking with Long-Term Constraints - *WSDM 2023*
<https://arxiv.org/pdf/2307.04923>

2. Felix Faltings, Michel Galley, **Kianté Brantley**, Baolin Peng, Weixin Cai, Yizhe Zhang, Jianfeng Gao, Bill Dolan
Interactive text generation - *EMNLP 2023 (spotlight talk)*
<https://arxiv.org/pdf/2303.00908>
3. Anne Wu, **Kianté Brantley**, Noriyuki Kojima, Yoav Artzi
lilGym: Natural Language Visual Reasoning with Reinforcement Learning - *ACL 2023*
<https://arxiv.org/abs/2211.01994>
4. Rajkumar Ramamurthy, Prithviraj Ammanabrolu, **Kianté Brantley**, Jack Hessel, Rafet Sifa, Christian Bauckhage, Hannaneh Hajishirzi, Yejin Choi
Is Reinforcement Learning (Not) for Natural Language Processing?: Benchmarks, Baselines, and Building Blocks for Natural Language Policy Optimization - *ICLR 2022 (spotlight talk)*
<https://arxiv.org/pdf/2210.01241.pdf>
5. **Kianté Brantley**, Soroush Mehri, Geoff Gordon
Successor Feature Sets: Generalizing Successor Representations Across Policies - *AAAI 2021*
<https://ojs.aaai.org/index.php/AAAI/article/view/17399>
6. **Kianté Brantley***, Miroslav Dudik*, Thodoris Lykouris*, Sobhan Miryoosefi*, Max Simchowitz*, Aleksandrs Slivkins*, Wen Sun*
Constrained episodic reinforcement learning in concave-convex and knapsack settings - *NeurIPS 2020*
<https://arxiv.org/pdf/2006.05051.pdf>
7. **Kianté Brantley**, Amr Sharaf, Hal Daumé III
Active Imitation Learning with Noisy Guidance - *ACL 2020*
<https://arxiv.org/pdf/2005.12801.pdf>
8. **Kianté Brantley**, Wen Sun, Mikael Henaff
Disagreement-Regularized Imitation Learning - *ICLR 2020 (spotlight talk)*
<https://openreview.net/forum?id=rkgbYyHtwB>
9. Sobhan Miryoosefi*, **Kianté Brantley***, Hal Daumé III, Miroslav Dudik, Robert Schapire
Reinforcement Learning with Convex Constraints - *NeurIPS 2019*
<https://arxiv.org/abs/1906.09323>
10. Sean Welleck, **Kianté Brantley**, Hal Daumé III, Kyunghyun Cho
Non-Monotonic Sequential Text Generation - *ICML 2019*
<https://arxiv.org/abs/1902.02192>

Workshop Papers

1. Ge Gao, Jonathan D Chang, Claire Cardie, **Kianté Brantley**, Thorsten Joachim
Policy-Gradient Training of Language Models for Ranking - *Instruction Workshop 2023*
<https://arxiv.org/pdf/2310.04407.pdf>
2. Jonathan D Chan*g, **Kianté Brantley***, Rajkumar Ramamurthy, Dipendra Misra, Wen Sun
Learning to Generate Better Than Your LLM - *FMDM Workshop 2023*
<https://arxiv.org/pdf/2306.11816>

3. Amr Sharaf, Shi Feng, Khanh Nguyen, **Kianté Brantley**, Hal Daumé III
The UMD Neural Machine Translation Systems at WMT17 Bandit Learning Task
Bandit Learning for Machine Translation Shared Task - *EMNLP 2017*
<https://arxiv.org/abs/1708.01318>
4. Ashwinkumar Ganesan, **Kianté Brantley**, Shimei Pan, Jian Chen (2015).
LDAExplore: Visualizing Topic Models Generated Using Latent Dirichlet Allocation -
Intelligent User Interfaces (IUI) - Textvis Workshop 2015
<http://arxiv.org/pdf/1507.06593.pdf>

INVITED TALKS

Rochester Institute of Technology	2023
Wayfair	2023
NC State University	2022
Cornell NLP Seminar	2022
Google Brain Montréal	2022
University of Maryland UMIACS	2021
Microsoft Research Summit	2021
Adobe Research	2020
The New York Academy of Sciences	2020
Black in AI Workshop at ACL	2020

LEADERSHIP/ACTIVITIES/SERVICES

Area Chair

Empirical Methods in Natural Language Processing	2023
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Reviewer

Special Interest Group on Information Retrieval	2023
ICML Workshop Spurious correlations, Invariance, and Stability	2023
Special Interest Group on Information Retrieval	2023
International Conference on Learning Representations	2022 2023
European Workshop on Reinforcement Learning	2022 – 2023
Empirical Methods in Natural Language Processing	2020
Conference on Neural Information Processing Systems	2020 2023
European Chapter of the Association for Computational Linguistics	2020 2023
Annual Conference of the Association for Computational Linguistics	2020 – 2021 2023
International Conference on Machine Learning	2019 – 2021 2023
Tapia Conference Scholarship Reviewer	2019 – 2021 2023
Black in Ai Admission	2019

Workshops

Co-chair, Interactive Learning for NLP workshop @ ACL and Neurips	2021 – 2022
Co-chair, NYU AI Winter School for underrepresented groups	2021 – 2022
Co-chair, Black in Ai at AAAI	2020

Co-curricular

Participated, Cornell NextGen Professor	2023
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Volunteered, Ithaca College Central NY LSAMP symposium	2022
Volunteered, WiNLP Panel at NAACL	2022
Volunteered, UMD Doctoral Career Pathways	2022
Participated, CMD-IT Academic Careers Workshop	2020
Volunteered, Bitview (teaching high schoolers computer science)	2020
Volunteered, Industry Mentor UMBC CWIT	2020
Volunteered, Maryland Institute for Minority Achievement and Urban Education College/Career Conference	2017
Volunteered, MSDE CTE/PLTW Conference Student Panel	2015 – 2017
Volunteered, Western Tech High Open house	2013 – 2016

TRAVEL SCHOLARSHIPS/GRANTS

Computing Research Association (CRA) Underrepresented Minorities + Persons with Disabilities (URMD) Grad Cohort Conference Scholarship	2018 – 2019
Neural Information Processing System (NeurIPS) Blacks in AI Workshop Scholarship	2017 – 2018
National Society of Blacks in Computing (NSBC) Annual Conference Scholarship	2016 – 2017

CERTIFICATIONS

Object-Oriented Programming Certificate Community College of Baltimore County The certificate is designed for career programmers who wish to add programming language to their skills.	2013
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TECHNICAL REPORTS

Kianté Brantley , Jingling Li, Fenfei Guo A Study of Deep Reinforcement Learning for Sentence Compression	2017
Amr Sharaf, Kianté Brantly , Parsa Saadatpanah, Ali Shafahi Recurrent Neural Network for Sequence-to-Sequence Reinforcement Learning	2017
Kianté Brantly , Bamidele Suarau, Seth Mosgin Experimental Comparison of Density-Based Spatial Clustering of Applications with Noise (DBSCAN) using k-d Trees vs. using VP Trees	2015
Kianté Brantly , Bamidele Suarau Comparing the effect of compression using PCA and DAE on classifier performance in predicting Epileptic Seizures from EEG data	2015

REFERENCES

1. Hal Daumé III
Professor, Computer Science Department, University of Maryland – College Park
hal3@umd.edu
2. Thorsten Joachims
Professor, Department of Computer Science, Cornell University
tj@cs.cornell.edu
3. Geoffrey J. Gordon
Professor, Department of Machine Learning, Carnegie Mellon University
ggordon@cs.cmu.edu
4. Miro Dudík
Sr Principal Researcher Manager, Microsoft Research New York
mdudik@microsoft.com
5. Wen Sun
Assistant Professor, Department of Computer Science, Cornell University
ws455@cornell.edu