

# KIANTÉ D. BRANTLEY

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## EDUCATION

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### 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

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### Cornell University, Postdoctoral Scholar

February 2022 - February 2024

Research Scientist, Mentored by: Thorsten Joachims

### Microsoft Research, Summer Internship(s)

May 2018 - August 2021

Microsoft Research, Redmond

May 2021 - August 2021

Research Scientist, Mentored by: Yizhe Zhang, Michel Galley, Bill Dolan

Microsoft Research, Montréal

May 2020 - August 2020

Research Scientist, Mentored by: Geoffrey J. Gordon and Soroush Mehri

Microsoft Research, NYC

May 2019 - August 2019

Research Scientist Mentored by: Miro Dudík and Hal Daumé III

Microsoft Research, NYC

May 2018 - August 2018

Research Scientist 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

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

## **SCHOLARSHIPS/FELLOWSHIPS**

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### **Computing Research Association (CRA) Post-Doc Fellowship      Spring 2022 – Spring 2024**

The goal of the CIFellows program is to create career growth opportunities that support maintaining the computing research pipeline. Computing research is defined as any area included under the National Science Foundation (NSF) Computing and Information Science and Engineering (CISE) Directorate. This effort takes inspiration from CRA/CCC's NSF-funded Computing Innovation Fellows Programs with cohorts starting 2009, 2010, and 2011.

### **Ann G. Wylie Dissertation Fellowship      Fall 2021**

The Graduate School's Semester Dissertation Fellowship program includes the Ann G. Wylie Dissertation Fellowship.. Dissertation Fellowships provide support to University of Maryland doctoral candidates who are in the latter stages of writing their dissertations.

### **Microsoft Dissertation Research Grant      Fall 2020**

The Microsoft Research Dissertation Grant aims to increase the pipeline of diverse talent receiving advanced degrees in computing-related fields by providing a research funding opportunity for doctoral students who are underrepresented in the field of computing

### **ACM SIGHPC/Intel Computational and Data Science Fellowships      Fall 2018 – Fall 2020**

The fellowship was established as a five-year program to increase the diversity of students pursuing graduate degrees in data science and computational science, including women as well as students from racial/ethnic backgrounds that have been historically underrepresented in the computing field.

### **NSF Louis Stokes Alliance for Minority Participation Bridge to the Doctorate Program (LSAMP BD) Fellowship      Summer 2016 – Fall 2018**

The LSAMP program assists universities and colleges in diversifying the STEM workforce through their efforts at significantly increasing the number of students successfully completing high-quality degree programs in science, technology, engineering, and mathematics (STEM) disciplines.

### **University of Maryland College Park Dean's Fellowship      Fall 2016 – Spring 2018**

The Graduate Dean's Dissertation Fellowships are intended to support currently enrolled University of Maryland doctoral students who have excellent qualifications.

**Department of Defense Graduate Fellowship****Fall 2015 – Spring 2015****Transfer-Scholarships in Information Technology and Engineering (T-SITE) Scholar****Fall 2013 – Spring 2015**

T-SITE is a highly selective scholars program funded by the National Science Foundation's S-STEM program and managed by the Center for Women in Technology, for new transfer students from Maryland community colleges majoring in computing and engineering. T-SITE Scholars engage in academic coaching, peer, faculty, and industry mentoring, and are part of the larger community of 99 scholars and 210 CWIT and Cyber Affiliates.

**Maryland Senators and Delegates Scholarship****Fall 2013 – Spring 2015**

Awarded to Maryland residents who are enrolled at a two-year or four-year Maryland college or university as a full-time or part-time degree-seeking undergraduate or graduate student.

**Transfer Student Alliance Scholarship****Fall 2013 – Spring 2015**

Offers eligible students who intend to earn their bachelor's degree at UMBC upon completion of their associate's degree at CCBC, guaranteed admission, and scholarship. The program requires students to have a minimum cumulative 3.5 composite GPA.

**Howard P. Rawlings Educational Assistance Grant****Fall 2013 – Spring 2015**

Awarded to full-time degree-seeking undergraduate students at an eligible institution in Maryland.

**CCBC Foundation General Scholarship****Fall 2013**

Awarded to a student enrolled in 6 or more credits at the CCBC campus with a minimum cumulative GPA of 2.5.

**PUBLICATIONS**

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**Kianté Brantley**, Soham Dan, Iryna Gurevych, Ji-Ung Lee, Filip Radlinski, Hinrich Schütze, Edwin Simpson, Lili Yu  
Proceedings of the First Workshop on Interactive Learning for Natural Language Processing - *ACL 2021*  
<https://aclanthology.org/2021.internlp-1.0.pdf>

**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>

**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>

**Kianté Brantley**, Amr Sharaf, Hal Daumé III  
Active Imitation Learning with Noisy Guidance - *ACL 2020*  
<https://arxiv.org/pdf/2005.12801.pdf>

**Kianté Brantley**, Wen Sun, Mikael Henaff  
Disagreement-Regularized Imitation Learning - *ICLR 2020 (spotlight talk)*  
<https://openreview.net/forum?id=rkgbYyHtwB>

Sobhan Miryoosefi\*, **Kianté Brantley\***, Hal Daumé III, Miroslav Dudik, Robert Schapire  
 Reinforcement Learning with Convex Constraints - *NeurIPS 2019*  
<https://arxiv.org/abs/1906.09323>

Sean Welleck, **Kianté Brantley**, Hal Daumé III, Kyunghyun Cho  
 Non-Monotonic Sequential Text Generation - *ICML 2019*  
<https://arxiv.org/abs/1902.02192>

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>

#### **Kianté Brantley**

BCAP: An artificial neural network pruning technique to reduce overfitting (Order No. 10140605). 2016  
<https://search.proquest.com/docview/1806143855?accountid=14696>

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>

#### **AWARDS/HONORS**

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2nd place, The New York Academy of Sciences Star Talks	<b>2020</b>
Outstanding Reviewer, Empirical Methods in Natural Language Processing Conference	<b>2020</b>
Sloan Research Fellow	<b>2017 - 2019</b>
CCBC Dean's List	<b>2011 – 2013</b>
CCBC Phi Theta Kappa All-American Academic Team	<b>2013</b>

#### **INVITED TALKS**

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Cornell NLP Seminar	<b>2022</b>
Google Brain Montréal	<b>2022</b>
University of Maryland UMIACS lighting talk	<b>2021</b>
Microsoft Research Summit	<b>2021</b>
Adobe Research - Learning through interactions with experts	<b>2020</b>
The New York Academy of Sciences: Spotlight talk	<b>2020</b>
Black in AI Workshop at ACL	<b>2020</b>

#### **UNPUBLISHED**

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<b>Kianté Brantley</b> , Jingling Li, Fenfei Guo	<b>2017</b>
A Study of Deep Reinforcement Learning for Sentence Compression	
Amr Sharaf, <b>Kianté Brantley</b> , Parsa Saadatpanah, Ali Shafahi	<b>2017</b>
Recurrent Neural Network for Sequence-to-Sequence Reinforcement Learning	

**Kianté Brantly**, Bamidele Suarau, Seth Mosgin

**2015**

Experimental Comparison of Density-Based Spatial Clustering of Applications with Noise (DBSCAN) using k-d Trees vs. using VP Trees

**Kianté Brantly**, Bamidele Suarau

**2015**

Comparing the effect of compression using PCA and DAE on classifier performance in predicting Epileptic Seizures from EEG data

## **TRAVEL SCHOLARSHIPS/GRANTS**

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Computing Research Association (CRA) Underrepresented Minorities + Persons with Disabilities (URMD) Grad Cohort Conference Scholarship

**2018 – 2019**

Neural Information Processing System (NIPS) Blacks in AI Workshop Scholarship

**2017 – 2018**

National Society of Blacks in Computing (NSBC) Annual Conference Scholarship

**2016 – 2017**

## **CERTIFICATIONS**

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**Object-Oriented Programming Certificate**  
**Community College of Baltimore County**

**Fall 2013**

The certificate is designed for career programmers who wish to add programming language to their skills.

## **LEADERSHIP/ACTIVITIES/SERVICES**

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### **Reviewer**

European Workshop on Reinforcement Learning

**2022**

Empirical Methods in Natural Language Processing

**2020**

Conference on Neural Information Processing Systems

**2020**

European Chapter of the Association for Computational Linguistics

**2020**

Annual Conference of the Association for Computational Linguistics

**2020 – 2021**

International Conference on Machine Learning

**2019 – 2021**

Tapia Conference Scholarship Reviewer

**2019 – 2021**

Black in AI Admission

**2019**

### **Leadership**

Co-chair, Interactive Learning for NLP workshop at Neurips

**2022**

Co-chair, Interactive Learning for NLP workshop at ACL

**2021**

Co-chair, NYU AI Winter School for underrepresented groups

**2021-2022**

Co-chair, Black in AI at AAAI

**2020**

Leader, University of Maryland College Park, Machine Learning

**2018**

Reading Group

**Co-curricular**

Participated, 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
Participated, MIT Hackathon	2014
Participated, UMBC Hackathon	2014
Member, Golden Key International Honour Society	2013 – Present
Participated, Morgan State University Hackathon	2013
Member, Phi Theta Kappa Honors Society	2012 – Present
Participated, CCBC programming competition	2012
Volunteered, Western Tech High JavaScript Class	2012
Member, CCBC Android development club	2012
Member, Community College of Baltimore County STEM program	2011 – 2013

**Extracurricular**

Member, Men's UMD Intramural Football	2017
Member, Men's UMD Intramural Basketball	2017 – 2018
Member, Meyerhoff Scholars Friend of the Program	2014 – 2015
Member, Men's UMBC Intramural Basketball	2013
Member, Men's Flag Football and Men's Basketball	2012 – 2014