Ari**Biswas**

PHD STUDENT (NO SPONSORSHIP REQUIRED)

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Education

PhD in Computer Science	*University Of Warwick*
JULY 2022 - CURRENT (EXPECTED APRIL 2026)	
Visiting Graduate Student (Sublinear Algorithms)	*Simons Institute, Berkeley, CA*
MAY 2024 - AUGUST 2024	
Visiting Graduate Student	*Oxford University*
MAY 2023 - MAY 2024	
M.S. in Computer Science	*University Of Wisconsin-Madison*
SEPTEMBER 2015 - DECEMBER 2017	
B.S in Computer Engineering and Applied Mathematics	*University Of Wisconsin-Madison*
SEPTEMBER 2011 - MAY 2015	

Experience

Amazon - UK   *Cambridge/London, United Kingdom*

APPLIED SCIENTIST   *March 2020 - November 2022*

- Lead scientist for offline evaluation of dialogue systems in Alexa
- Lead scientist for AI assisted UX development in Alexa

Amazon - USA   *Seattle, WA, USA*

APPLIED SCIENTIST   *May 2017 - March. 2020*

- Lead scientist for real time interactive search platform. Deployed in January 2018; currently supports 500 million users.
- Lead scientist for personalised news recommendations in Alexa

Soccer Without Borders   *Seattle, WA, USA*

ADVISORY BOARD MEMBER AND HIGH SCHOOL COACH   *September 2019 - March 2020*

- Coached High School Soccer Team
- Help with fundraising and coaching structure

University of Wisconsin-Madison   *Madison, WI, USA*

RESEARCH ASSISTANT   *June 2012 - December 2017*

- Software Developer for NEXT- a cloud based machine learning system for applying adaptive data collection under the supervision of Professor Kevin Jamieson. Algorithms used by the New Yorker for cartoon selection contest. NEXT: http://nextml.org/team/
- Developed instructional material (`https://tinyurl.com/4v2hptfk`) for introduction to Computer Engineering via Robotics for Karu Sankaralingam

Publications

Sum Of Squares Of Proofs For Perfect Matchings Are Also Hard To Refute   *2025*

ARI BISWAS, RAJKO NENADOV   *In Submission*

Available on Request

Differentially Private Hierarchical Heavy Hitters   *2025*

ARI BISWAS, GRAHAM CORMODE, YARON KANZA, DIVESH SRIVASTAVA, ZHENGYI ZHOU,   *TPDP 2024, PODS 2025*

`https://abiswas3.github.io/papers/dp-hhh-camera-ready.pdf`

Interactive Proofs For Differential Privacy   *ACM CCS, 2023*

ARI BISWAS, GRAHAM CORMODE   *Copenhagen, Denmark*

`https://abiswas3.github.io/papers/CCS_2023.pdf`

Interactive Proofs For Differential Privacy (Extended Abstract) *TPDP Workshop, 2023*
ARI BISWAS, GRAHAM CORMODE *Boston, USA*
`https://abiswas3.github.io/papers/TpDpAbstract.pdf`

Seeker: Real-time interactive search *ACM SIGKDD, 2019*
ARI BISWAS, THAI PHAM, MICHAEL VOGELSONG, BENJAMIN SNYDER, HOUSSAM NASSIF *Anchorage, USA*
`https://dl.acm.org/doi/10.1145/3292500.3330733`

Adversarial principal component analysis. *IEEE ISIT, 2017*
DANIEL L. PIMENTEL-ALARCÓN, ARI BISWAS, CLAUDIA R. SOLÍS-LEMUS *Aachen, Germany*
`https://ieeexplore.ieee.org/document/8006952`

Hands-on introduction to computer science at the freshman level *ACM SIGCSE, 2014*
RAGHU BALASUBRAMANIAN,, ZACH YORK, MATT DORAN, ARI BISWAS, TIMUR GIRGIN, AND KARU SANKARALINGAM *Atlanta, USA*
`https://dl.acm.org/doi/10.1145/2538862.2538889`

Honors & Awards

2024	**Travel Grant** Simons Institute WOLA Workshop	Berkeley, CA
2023	**Travel Grant** Awarded to students with papers at the Theory and Practice Of Differential Privacy Workshop	Boston, MA
2022	**Chancellors International Scholarship** Awarded to the 30 most outstanding international PhD applicants to the University of Warwick across all departments.	University of Warwick
2011-2015	**Top 10% students ECE department, Deans List**	UW Madison

Teaching Experience

Algorithm Foundations Of Social Choice *Oxford University*
TEACHING ASSISTANT FOR EDITH ELKIND *Hilary Term 2024*

Computational Game Theory *Oxford University*
TEACHING ASSISTANT FOR MICHAEL WOOLDRIDGE *Michaelmas Term 2023*

Introduction to Programming in Python *CS 301, UW Madison*
TEACHING ASSISTANT FOR LAURA HOBBES LEGAULT *Fall. 2017*

Introduction to Real Analysis *Math 521, UW Madison*
GRADER FOR BRIAN COOK *Spring. 2017*

Introduction to Optimization *CS/ECE/ISyE 524, UW Madison*
TEACHING ASSISTANT AND GRADER FOR LAURENT LESSARD *Spring. 2016*

Theory and Applications of Pattern Recognition *ECE/CS 532, UW Madison*
TEACHING ASSISTANT AND GRADER FOR ROBERT NOWAK *Fall. 2015*

Introduction to Computer Engineering *CS 252, UW Madison*
LAB ASSISTANT FOR KARU SANKARALINGAM *Spring 2012, Spring 2014*

Posters and Talks

Differentially Private Hierarchical Heavy Hitters *Poster*
TPDP 2024 *Harvard University, August 2024*

Interactive Proofs For Differential Privacy *Talk*
CCS 2023 *Copenhagen, Denmark, November 2023*

Interactive Proofs For Differential Privacy *Poster*
TPDP 2023 - THEORY AND PRACTICE OF DIFFERENTIAL PRIVACY *Boston, MA, USA, September 2023*

Interactive Proofs For Differential Privacy *Talk*
WARWICK POSTGRADUATE COLLOQUIUM IN COMPUTER SCIENCE (WPCCS) *Coventry, UK, March 2023*

Interactive Proofs For Differential Privacy   *Talk*

Amazon Prime Talk Series (Invited)   *Seattle, WA, USA, October 2023*

News Recommendations in Alexa using Contextual Bandits   *Talk*

Amazon Machine Learning Conference (AMLC)   *Seattle, WA, USA, July 2019*

Entity Matching for EHR- and Transcriptome-based Phenotyping   *Talk*

CPCP Retreat (https://vimeo.com/173793012)   *Madison, WI, USA, July 2016*

Interactive Proofs For Differential Privacy   *Talk*

Amazon Prime Talk Series (Invited)   *Seattle, WA, USA, October 2023*

News Recommendations in Alexa using Contextual Bandits   *Talk*

Amazon Machine Learning Conference (AMLC)   *Seattle, WA, USA, July 2019*