

# AriBiswas

PHD STUDENT

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## Education

### University Of Warwick

PH.D IN COMPUTER SCIENCE

Coventry, United Kingdom

July 2022 - Current

### University Of Wisconsin-Madison

M.S. IN COMPUTER SCIENCE

Madison, WI, USA

September 2015 - December 2017

### University Of Wisconsin-Madison

B.S IN COMPUTER ENGINEERING AND APPLIED MATHEMATICS

Madison, WI, USA

September 2011 - May 2015

## Experience

### Amazon - UK

APPLIED SCIENTIST

Cambridge/London, United

Kingdom

March 2020 - November 2021

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

### Amazon - USA

APPLIED SCIENTIST

Seattle, WA, USA

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

ADVISORY BOARD MEMBER AND HIGH SCHOOL COACH

Seattle, WA, USA

September 2019 - current

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

### University of Wisconsin-Madison

RESEARCH ASSISTANT

Madison, WI, USA

June 2012 - December 2017

- Investigated sparse linear methods for EHR phenotyping under the supervision of Professor Robert Nowak and Professor Rebecca Willett
- 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/>
- Re-designed Targeted Projection Pursuit, an experimental framework to allow a scientist to directly query subjects' 2D mental models of a collection of objects to learn a high dimensional representation of the data.
- Developed instructional material (<https://tinyurl.com/4v2hptfk>) for introduction to Computer Engineering via Robotics for Karu Sankaralingam

## Publications

### Interactive Proofs For Differential Privacy

ARI BISWAS, GRAHAM CORMODE

ACM CCS, 2023

Copenhagen, Denmark

[http://abiswas3.github.io/papers/CCS\\_2023.pdf](http://abiswas3.github.io/papers/CCS_2023.pdf)

### Interactive Proofs For Differential Privacy (Extended Abstract)

ARI BISWAS, GRAHAM CORMODE

TPDP Workshop, 2023

Boston, USA

<http://abiswas3.github.io/papers/TpDpAbstract.pdf>

### Seeker: Real-time interactive search

ARI BISWAS, THAI PHAM, MICHAEL VOGELSONG, BENJAMIN SNYDER, HOUSAM NASSIF

ACM SIGKDD, 2019

Anchorage, USA

<https://dl.acm.org/doi/10.1145/3292500.3330733>

### Adversarial principal component analysis.

DANIEL L. PIMENTEL-ÁLARCÓN, ARI BISWAS, CLAUDIA R. SOLÍS-LEMUS

IEEE ISIT, 2017

Aachen, Germany

<https://ieeexplore.ieee.org/document/8006952>

## Hands-on introduction to computer science at the freshman level

RAGHU BALASUBRAMANIAN, ZACH YORK, MATT DORAN, **ARI BISWAS**, TIMUR GIRGIN, AND KARU SANKARALINGAM  
<https://dl.acm.org/doi/10.1145/2538862.2538889>

ACM SIGCSE, 2014

Atlanta, USA

## Honors & Awards

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|-----------|---|-----------------------|
| 2023      | <b>Travel Grant</b> Awarded to students with papers at the Theory and Practice Of Differential Privacy Workshop   | Boston, MA            |
| 2022      | <b>Chancellors International Scholarship</b> Awarded to the 30 most outstanding international PhD applicants to the University of Warwick across all departments. | University of Warwick |
| 2011-2015 | <b>Top 10% students ECE department</b>  | UW Madison            |

## Teaching Experience

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### Computational Game Theory

TEACHING ASSISTANT FOR MICHAEL WOOLDRIDGE

Oxford University

Michaelmas Term 2023

### Introduction to Programming in Python

TEACHING ASSISTANT FOR LAURA HOBBS LEGAULT

CS 301, UW Madison

Fall. 2017

### Introduction to Real Analysis

GRADER FOR BRIAN COOK

Math 521, UW Madison

Spring. 2017

### Introduction to Optimization

TEACHING ASSISTANT AND GRADER FOR LAURENT LESSARD

CS/ECE/ISyE 524, UW Madison

Spring. 2016

### Theory and Applications of Pattern Recognition

TEACHING ASSISTANT AND GRADER FOR ROBERT NOWAK

ECE/CS 532, UW Madison

Fall. 2015

### Introduction to Computer Engineering

LAB ASSISTANT FOR KARU SANKARALINGAM

CS 252, UW Madison

Spring 2012, Spring 2014

## Posters and Talks

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### Interactive Proofs For Differential Privacy

CCS 2023

Scheduled Talk

Copenhagen, Denmark, November 2023

### Interactive Proofs For Differential Privacy

TPDP 2023 - THEORY AND PRACTICE OF DIFFERENTIAL PRIVACY

Poster

Boston, MA, USA, September 2023

### Interactive Proofs For Differential Privacy

WARWICK POSTGRADUATE COLLOQUIUM IN COMPUTER SCIENCE (WPCCS)

Talk

Coventry, UK, March 2023

### Interactive Proofs For Differential Privacy

AMAZON PRIME TALK SERIES (INVITED)

Talk

Seattle, WA, USA, October 2023

### News Recommendations in Alexa using Contextual Bandits

AMAZON MACHINE LEARNING CONFERENCE (AMLC)

Talk

Seattle, WA, USA, July 2019

### Entity Matching for EHR- and Transcriptome-based Phenotyping

CPCP RETREAT (<https://vimeo.com/173793012>)

Talk

Madison, WI, USA, July 2016