

Marilyn George

Senior Research Scientist
Cryptography Research Group, MongoDB Inc.

1633 Broadway
New York, NY 10019

EDUCATION

Brown University	Providence, Rhode Island
<i>Ph.D. in Computer Science</i>	Aug 2017 – May 2022
<i>M.S. in Computer Science</i>	Aug 2017 – May 2019
Indian Institute of Science	Bangalore, Karnataka
<i>M.E. in Computer Science</i>	Aug 2014 – May 2016
National Institute of Technology	Calicut, Kerala
<i>B.Tech. in Computer Science and Engineering</i>	Aug 2009 – May 2013

EXPERIENCE

MongoDB Research	New York City, New York
<i>Research Scientist</i>	Aug 2022 –
• Researching practical methods for leakage suppression.	
• Analyzing the system-level security of Queryable Encryption.	
Brown University	Providence, Rhode Island
<i>Graduate Research Assistant</i>	Aug 2017 – May 2022
• Designed structured encryption schemes with a focus on dynamic and practically efficient leakage suppression with Prof. Seny Kamara	
• Designed GDPR compliance mechanisms for legacy databases with Prof. Malte Schwarzkopf, and studied pricing equilibria in single-minded markets with Prof. Amy Greenwald	
MongoDB	New York City, New York
<i>Research Intern</i>	Jul 2021 – Sep 2021
• Designed new methods of practically efficient leakage suppression to hide query volumes	
UTU Technologies	Remote
<i>Research Intern</i>	May 2020 – Aug 2020
• Analyzed cryptographic methods for customer data provision on the blockchain	
Microsoft Research India	Bangalore, Karnataka
<i>Research Fellow</i>	Jun 2016 – Jul 2017
• Developed efficient methods to support analytics on encrypted data using partially homomorphic encryption	
Indian Institute of Science	Bangalore, Karnataka
<i>Graduate Research Assistant</i>	Aug 2015 – May 2016
• Studied searchable encryption and designed search pattern hiding techniques with Prof. Bhavana Kanukurthi	
Goldman Sachs India	Bangalore, Karnataka
<i>Programmer Analyst</i>	May 2013 – Aug 2014
• Developed and maintained internal trade compliance systems	

RESEARCH

Structured Encryption and Distribution-aware Leakage Suppression	ASIACRYPT 2025
<i>Marilyn George, Seny Kamara, Tarik Moataz, and Zachary Espiritu</i>	
The 31st International Conference on the Theory and Application of Cryptology and Information Security	
Synq: Public Policy Analytics over Encrypted Data	IEEE S&P 2024
<i>Zachary Espiritu, Marilyn George, Seny Kamara, and Lucy Qin</i>	
2024 IEEE Symposium on Security and Privacy	

On the Cost of Suppressing Volume for Encrypted Multi-maps Megumi Ando and <i>Marilyn George</i> The 22nd Privacy Enhancing Technologies Symposium	PETS 2022
Adversarial Level Agreements for Two-Party Computation <i>Marilyn George</i> and Seny Kamara The 2022 ACM Asia Conference on Computer and Communications Security	AsiaCCS 2022
GDPR Compliant Legacy Databases Archita Agarwal, <i>Marilyn George</i> , Aaron Jeyaraj, and Malte Schwarzkopf The VLDB Endowment, Volume 15	VLDB 2022
Structured Encryption and Dynamic Leakage Suppression <i>Marilyn George</i> , Seny Kamara, and Tarik Moataz The 40th Annual International Conference on the Theory and Applications of Cryptographic Techniques	EUROCRYPT 2021
Towards Untrusted Social Video Verification to Combat Deepfakes Eleanor Tursman, <i>Marilyn George</i> , Seny Kamara, and James Tompkin The IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops	Workshop, CVPR 2020
Updatable Private Set Intersection from Structured Encryption Archita Agarwal, David Cash, <i>Marilyn George</i> , Seny Kamara, Tarik Moataz, and Jaspal Singh	Manuscript
tEX: (Practical and Near-Optimal) tiny Encrypted Indexes Zachary Espiritu and <i>Marilyn George</i>	Manuscript

TALKS

On the Cost of Suppressing Volume for Encrypted Multi-maps – PETS 2022	2022
Adversarial Level Agreements for Two-Party Protocols – AsiaCCS 2022	2022
Structured Encryption and Dynamic Leakage Suppression – Indian Institute of Science	2022
Structured Encryption and Dynamic Leakage Suppression – Duke University	2022
Structured Encryption and Dynamic Leakage Suppression – University of Massachusetts, Dartmouth	2022
Structured Encryption and Dynamic Leakage Suppression – Monash University	2021
Structured Encryption and Dynamic Leakage Suppression – Google Research	2021
Structured Encryption and Dynamic Leakage Suppression – Boston University	2021
Structured Encryption and Dynamic Leakage Suppression – EUROCRYPT 2021	2021
Structured Encryption and Dynamic Leakage Suppression – University of Chicago	2021
Surveillance, Privacy, and Social Control – DIMACS Workshop on Law and CS	2020

TEACHING

Course Design Certificate – Sheridan Center for Teaching and Learning	2021
Teaching Consultant Program – Sheridan Center for Teaching and Learning	2021
Graduate Teaching Assistant, Brown CS – Algorithmic Game Theory	2020
Reflective Teaching Certificate – Sheridan Center for Teaching and Learning	2020
Instructor, Summer@Brown – An Introduction to Cryptography	2019
Co-instructor, Summer@Brown – An Introduction to Cryptography	2018

HONORS AND AWARDS

Coline M. Makepeace Fellowship	2021-2022
Kanellakis Fellowship	2021-2022
Rising Stars EECS	2020

SERVICE

Program Committee – PETS 2026	2025-2026
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Women in Cryptography Chair – CRYPTO 2025	2025
External Reviewer – CRYPTO 2025	2025
Program Committee – CCS 2024	2024
Program Committee – CT-RSA 2024	2023
Invited Speaker – RISE Workshop at CRYPTO 2023	2023
External Reviewer – CCS 2023, CRYPTO 2023	2023
External Sub-reviewer – CRYPTO 2021, EUROCRYPT 2022	2021
External Sub-reviewer – EUROCRYPT 2021	2020
Ph.D. Mentorship Czar – Brown Computer Science	2019-2022
President – Indian Community at Brown University	2018-2019

PROGRAMMING

C, C++, Java, L^AT_EX, MATLAB, Python, Shell, and MySQL

OTHER INTERESTS

Reading, Word Games, Math and Logic Puzzles