

# Marilyn George

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## EDUCATION

### BROWN UNIVERSITY

PHD IN COMPUTER SCIENCE  
2017-2022 | Providence, RI

MS IN COMPUTER SCIENCE  
2017-2019 | Providence, RI

INDIAN INST. OF SCIENCE  
MENG IN COMPUTER SCIENCE  
2014-2016 | Bangalore, IN

NATIONAL INST. OF TECH.  
BTECH IN COMPUTER SCIENCE  
2009-2013 | Calicut, IN

## SKILLS

### PROGRAMMING

Proficient:

Python • Java •  $\LaTeX$

Familiar:

C • C++ • Shell • MySQL • Matlab

## AWARDS

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

## TALKS

Structured Encryption & Dynamic  
Leakage Suppression, EUROCRYPT 2021  
• Surveillance, Privacy & Social Control,  
DIMACS Workshop on Law & CS 2020

## SERVICE

Reviewer for Eurocrypt '22, Eurocrypt '21,  
Crypto '21 • CS PhD Mentorship Czar  
2019-2022 • President, Indian  
Community at Brown, 2018-2019

## COURSEWORK

Cryptography  
Secure Computation  
Privacy-Conscious Computer Systems  
Software Security & Exploitation  
Design & Analysis of Algorithms  
Topics in Algorithmic Game Theory  
Machine Learning & AI  
Computational Methods of Optimization  
Program Analysis & Verification

## RESEARCH (SELECTED)

### STRUCTURED ENCRYPTION & DYNAMIC LEAKAGE SUPPRESSION | EUROCRYPT 2021

With S. Kamara and T. Moataz. Designed dynamic structured encryption with query equality suppression using oblivious RAM techniques.

### GDPR COMPLIANT LEGACY DATABASES | VLDB 2022

With A. Agarwal, A. Jeyaraj, and M. Schwarzkopf. Designed a GDPR compliance tool for legacy databases.

### LOWER BOUNDS FOR VOLUME-HIDING MULTIMAPS | PETS 2022

With M. Ando. Analysed the necessary costs of suppressing the volume leakage for encrypted multi-maps.

### ADVERSARIAL LEVEL AGREEMENTS FOR SECURE COMPUTATION | ASIACCS 2022

With S. Kamara. Modified cryptographic protocols for better efficiency using penalties for adversarial deviations using game theoretic techniques.

## EXPERIENCE

### BROWN COMPUTER SCIENCE | GRADUATE STUDENT

2017 - 2022 | Providence, RI

- Research in applied cryptography with Prof. Seny Kamara,
- Research in algorithmic game theory with Prof. Amy Greenwald, and privacy-conscious systems with Prof. Malte Schwarzkopf.

### MONGODB | INTERN

Summer 2021 | New York City, NY

- Worked with the server security team.

### UTU TECHNOLOGIES | INTERN

Summer 2020 | Remote

- Studied cryptographic methods to implement data provision from customers with Dr. Bastian Blankenberg.

### MICROSOFT RESEARCH INDIA | RESEARCH FELLOW

2016 - 2017 | Bangalore, IN

- Developed efficient methods to support analytics on encrypted data with Dr. Nishanth Chandran and Dr. Satya Lokam.

### CRYPTOGRAPHY, SECURITY AND PRIVACY GROUP | STUDENT

2015 - 2016 | Bangalore, IN

- Studied searchable encryption with Prof. Bhavana Kanukurthi.

### GOLDMAN SACHS INDIA | PROGRAMMER ANALYST

2013 - 2014 | Bangalore, IN

## TEACHING

2021	Course Design Certificate	Sheridan Center for Teaching & Learning
2021	Teaching Consultant Program	Sheridan Center for Teaching & Learning
2020	Topics in Algorithmic Game Theory	Graduate Teaching Assistant, Brown CS
2020	Reflective Teaching Certificate	Sheridan Center for Teaching & Learning
2019	An Introduction to Cryptography	Instructor, Summer@Brown