

Marilyn George

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EDUCATION

BROWN UNIVERSITY

PHD IN COMPUTER SCIENCE
Aug 2017-date | Providence, RI

BROWN UNIVERSITY

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

WORK EXPERIENCE

UTU TECHNOLOGIES | INTERN

Summer 2020 | Remote

GOLDMAN SACHS INDIA 2013 –

2014 | Bangalore, IN

SKILLS

PROGRAMMING

Over 2500 lines:

Java • Python • \LaTeX

Familiar:

C • C++ • Shell • MySQL • Matlab

SERVICE

CS PhD Mentorship 2019-2021 •
President, Indian Community at Brown,
2018-2019

COURSEWORK

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

RESEARCH EXPERIENCE

BROWN COMPUTER SCIENCE | GRADUATE STUDENT

Aug 2017 - date | Providence, RI

- Working in applied cryptography with Prof. Seny Kamara.

MICROSOFT RESEARCH INDIA | RESEARCH FELLOW

2016 – 2017 | Bangalore, IN

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

CRYPTOGRAPHY, SECURITY AND PRIVACY GROUP | THESIS

2015 – 2016 | Bangalore, IN

- Worked on searchable encryption with Prof. Bhavana Kanukurthi.

PROJECTS (SELECTED)

ADVERSARIAL LEVEL AGREEMENTS FOR SECURE COMPUTATION | RATIONAL CRYPTOGRAPHY

Graduate Research

Using game theoretic techniques to modify traditional cryptographic protocols for greater efficiency using penalties for adversarial deviations.

SURVEILLANCE AND ENCRYPTION | GAME THEORY

Graduate Research - Ongoing

Studying the interplay of surveillance and encryption in social networks.

INVESTIGATING COMPETITIVE EQUILIBRIA | GAME THEORY

Graduate Research - Ongoing

Studying the use of expressive prices to obtain Walrasian Equilibria in single-minded markets.

GDPR COMPLIANT LEGACY DATABASES | PRIVATE SYSTEMS

Graduate Research - Ongoing

Designing a system to add GDPR compliance to legacy databases using query workloads.

PUBLICATIONS

- Marilyn George and Seny Kamara. Adversarial level agreements for two-party protocols. Cryptology ePrint Archive, Report 2020/1249, 2020
- Eleanor Tursman, Marilyn George, Seny Kamara, and James Tompkin. Towards untrusted social video verification to combat deepfakes via face geometry consistency. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops, pages 654–655, 2020

TEACHING

2020	Topics in Algorithmic Game Theory	Graduate Teaching Asst.
2020	Reflective Teaching Seminar	Sheridan Center for Teaching & Learning
2019	An Introduction to Cryptography	Instructor, Summer@Brown
2018	An Introduction to Cryptography	Co-instructor, Summer@Brown