

# Priyanka Mondal

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## Education

**University of California, Santa Cruz**

PhD, Computer Science, GPA: 4.0/4.0

2017–2024

**Indian Institute of Science, Bangalore**

Master of Engineering, Computer Science, GPA: 6.7/8.0

2013–2015

**Bengal Engineering and Science University, Kolkata**

Bachelor of Engineering, Computer Science, *First-class with Honors*

2009–2013

## Research Experience

**Research Interests:** Cryptography, Distributed Systems, Language based security

### Publications

- I/O-Efficient Dynamic Searchable Encryption meets Forward & Backward Privacy**  
Priyanka Mondal, Javad Ghareh Chamani, Ioannis Demertzis, and Dimitrios Papadopoulos  
*Proceedings of the 33rd USENIX Security Symposium, 2024 (USENIX'24)*
- Flow-Limited authorization for consensus, replication, and secret sharing**  
Priyanka Mondal, Maximilian Algehed and Owen Arden  
*Journal of Computer Security, 31st Volume (JCS'23)*
- Applying consensus and replication securely with FLAQR (Distinguished Paper Award)**  
Priyanka Mondal, Maximilian Algehed and Owen Arden  
*Proceedings of 35th IEEE Computer Security Foundations Symposium (CSF'22)*
- Vote them out: Detecting and eliminating byzantine peers (Extended abstract)**  
Tuan Tran, Priyanka Mondal, Roy Shadmon, Peter Alvaro and Owen Arden  
*Proceedings of 10th ACM Symposium on Cloud Computing (SoCC'19)*

### ME Thesis

**Title:** Atomicity Checking with Blame Assignment for Android Applications.

**Supervisor:** Prof. Aditya Kanade, Software Engineering and Analysis Lab, IISc Bangalore

## Work Experience

- Citrix R&D Pvt. Ltd, Bangalore.** Networking & Cloud team, *Software Engineer II*, 2015-17
  - Transmitting JSON data from Packet Engines to Amazon S3 via Unified Logger Daemon.
  - Converting HAProxy load balancer config to Netscaler load balancer config.
  - Enhancing a Wireshark plugin for internal testing.
- Nomura Research Institute, Kolkata.** Enterprise Data Warehouse team, *Summer Intern*, 2012

## Skills

**Programming skills:** C++, C, Java, Haskell, Coq, Dafny, HTML, CSS, Python, JavaScript

**Technical skills:** Linux, Git, L<sup>A</sup>T<sub>E</sub>X, GDB, Wireshark, OpenSSL, SQL, Matlab, Docker, Django

## Teaching Assistant Experience

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- Foundations of Programming Languages, (*Head TA*), CSE114 - UC Santa Cruz, Winter'24
- Programming Languages, CMPS210 - UC Santa Cruz, Spring'21, Spring'23
- Introduction to Analysis of Algorithms, CMPS102, UC Santa Cruz, Winter'23
- Advanced Programming, CMPS109 - UC Santa Cruz, Summer'19, Spring'22
- Comparative Programming Languages, CMPS112 - UC Santa Cruz, Spring'18
- Compiler Design, CMPS104 - UC Santa Cruz, Fall'17

## Selected Talks & Posters

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- Applying replication and consensus securely with FLAQR - CSF'22, Haifa, Israel
- Flow Limited Authorization for Quorum Replication - PLCrypt'22, Stanford Research Inst.
- Applying replication and consensus securely with FLAQR - PLAS'21 (Virtual)
- A Language for Secure Replicated Computation (Poster & talk) - CSF'19, New Jersey
- Vote Them Out: Detecting and Eliminating Byzantine Peers(Poster) - SoCC'19, Santa Cruz

## Grants and Scholarships

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- Computer Security Foundations Travel Grant, 2019 and 2022
- Symposium on Cloud Computing Student Scholarship, 2019
- Programming Languages Design and Implementations Travel Grant, 2019
- Programming Languages Mentoring Workshop at POPL Student Grant, 2019
- Oregon Programming Languages Summer School Student Grant, 2018
- UC Santa Cruz Regents Fellowship, Winter 2018

## Service and Outreach

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- Vice President - Women in Cyber-security (WiCyS) students chapter, UC Santa Cruz
- Member - Women in Science and Engineering (WiSE), UC Santa Cruz
- External reviewer - AsiaCCS'24, Sigmod'23, FCS'22
- Student volunteer - CSF'22, PLDI'19, CSF'19, PLDI'22

## References

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1. [Professor. Owen Arden](#) E-mail: oarden@ucsc.edu
2. [Professor. Ioannis Demertzis](#) E-mail: idemertz@ucsc.edu