# Prashanthi Ramachandran

prashanthi-r.github.io

☑ **()** in

#### **EDUCATION**

# Postgraduate Diploma in Advanced Studies and Research Ashoka University | Computer Science Bachelor of Science (Honours) Ashoka University | Computer Science | Cum Laude Honours | Dean's list (3 semesters) Aug. 2020 - May 2021 3.85/4.00 Aug. 2020 - May 2021 Aug. 2017 - May 2020

#### RESEARCH

# S++: A Secure Computation Framework

December 2019 – November 2020

Ashoka University

Sonipat, India

- Developed a secure three-party framework for privacy preserving ML training for exponentiation-based activation functions under the guidance of Prof. Debayan Gupta.
- Accepted for poster presentation at The Second AAAI Workshop on Privacy-Preserving Artificial Intelligence (PPAI 2021) workshop.

#### Blocksim-Net: A Network-Based Blockchain Simulator

May 2020 – Present

Koc University

- Istanbul, Turkey
- Developed a network-based blockchain simulator for Bitcoin and Ethereum networks that can be used for beta-testing, optimisations, and attacks mitigation at Koç University's Summer Research Programme.
- Accepted to and presented at BAŞARIM 2020. Extended work in progress with the Cryptography, Security, and Privacy Research Group at Koç University, under Prof. Alptekin Küpçü for submission to The Turkish Journal of Electrical Engineering & Computer Sciences.

#### EXPERIENCE

# Capstone Project ( ) | Ashoka University.

Sep. 2020 – December 2020

• Implemented state-of-the-art privacy preserving linear regression frameworks such as SecureML and ABY3 under the guidance of Prof. Mahavir Jhawar. Link to presentation.

#### Intern | AshokaX, Ashoka University.

June 2020 – Aug 2020

• Launched the pilot version of AshokaX, Ashoka University's EduTech initiative and onboarded 11 classes of online learners as a part of the programme team. Worked on the learning management system and aided the instructors and online learners with technical troubles.

# Hyperfunds - A Hyperledger application $\mathbf{Q} \mid Ashoka \ University$

Feb 2020 – May 2020

• Built a distributed application on Hyperledger Fabric that enables faculty at Ashoka University reliably spend their research funds with approval from the right administrators using Python and Javascript.

#### Neural Machine Translation ( ) | Ashoka University

Feb 2020 – May 2020

• Built an LSTM Encoder-Decoder based model for machine translation from English to Hindi with Attention mechanism in Python.

#### Software Development Intern O | Trivedi Center for Political Data

Dec 2019 - Jan 2020

• Added query by ID functionality and fixed bugs for the software Surf, used for incumbency mapping for Indian politicians in Java.

### Summer Intern | Technology Business Incubator, SASTRA University

July 2019 – Aug 2020

• Worked on interior designing using VR in Unity and C#.

#### Yao's Garbled Circuits 🖸

May 2018 – August 2018

• Implemented RSA based oblivious transfer and Yao's garbled circuits in C.

#### Positions Held

Teaching Assistant   Computer Organisation and Systems, Prof. Manu Awasthi, Ashoka University	2020
President   Women in Computing Society, Ashoka University	2020 - Present
Team Representative and Vocalist   Alankar, Vistaar - The Music Society of Ashoka	2018 - 2019
Tutor   Probability and Statistics   Computer Science Helpdesk, Ashoka University	2019
Academic Counselor   Young Scholars Programme, Ashoka University	2019
Student Ambassador   Ashoka University	2018