

# MANAN MONGA

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## EDUCATION

### Boston University

Boston, MA

MS in Computer Science with a Specialization in Cybersecurity, GPA: 3.57 / 4 Sep. 2019 - Expected Jan. 2021

Courses: Data Systems with **Python**, Object Oriented Software Engineering with **Java**, Applied **Cryptography**, Cryptography, Cryptography 2, **Cybersecurity**, Advanced **Algorithms**, **Cloud** Computing

### PES University

Bengaluru, IN

BE in Electronics and Communications

Aug. 2015 - May. 2019

Courses: : Operating Systems, **Network Security**, **Database Security**, C, Python

## TECHNICAL STRENGTHS

### Languages & Frameworks

Python, C++, Java, JavaScript, React-Native, SQL, PyTest

### Other

Linux, Git, Bash, Agile, TDD

## EXPERIENCE

### Boston University Hariri Institute For Computing

Boston, MA

Graduate Research Assistant

April 2020 - Present

- Hariri Institute is a convergence accelerator that initiates data-driven research for a better society.
- Built cross-platform prototype application using **React-Native** for privacy-sensitive **electronic contact tracing** for COVID-19
- Was responsible for implementing Bluetooth Low Energy chirps and researching feasible sensor technologies
- Part of core team under Prof. Trachtenberg looking at and dissecting global contact tracing research

### American Express

Gurgaon, IN

Fixed Assets Management Intern

June 2018 – July 2018

- Spearheaded examination of current fixed assets of AmEx to develop dynamic short-term and long-term **investment model** of workplace enablement assets with site-wise granularity
- Led the presentation of deliverables to global senior management, was appreciated for insight and clarity of thought.

### Medical Systems and Services

Delhi, IN

Marketing Strategy Intern

June 2019 – July 2019

- Formulated Marketing Strategy** for a multinational company selling high-value products collaborating with team of salesmen to **identify customers' needs** and engineers to identify USPs of products.
- Visited customers and understood how MSS products were best solutions for them. Position required 40% travel.

## PROJECTS

### Bare-Metal Marketplace

- Implemented double-blind **auction system on Python** for marketplace to ensure fair trading.
- Worked in **Agile** team to design an open marketplace system for the MOC to buy and sell time on bare-metal nodes.

### Python SQL operator library with Provenance and Explain-ability

- Built an operator library in Python that scales up and keeps track of **data provenance** and has ML explain-ability features with **LIME** and **SHAP**

### P-IPFS

- Bridge between Polkadot (a blockchain network) and IPFS (a decentralized and distributed data system).
- Worked on user authentication and signing.

## PUBLICATIONS

### Software Defined Networks as a backbone for Large Scale IoT Networks

- Presented the benefits of using a Software-Defined Networking (SDN) with virtualized network functions as a backbone for large-scale IoT
- Analyzed the security benefits offered in integrating the software defined paradigm into large-scale IoT networks and developed an architecture for the same, focused on security.