**TRISHITA TIWARI**

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**Education:**

* Boston University, College of Engineering Boston, MA  
  Bachelor of Science in Computer Engineering, expected May 2019.  
  **Trustee Scholar**  
  Member of Kilachand Honors College  
  Cumulative GPA: **3.96**

**Publications:**

* T. Tiwari, D. Starobinski and A. Trachtenberg. “Distributed Web Mining of Ethereum”. *International Symposium on Cyber Security Cryptography and Machine Learning (CSCML)*, Be’er Sheva, Israel, 2018, pp. 38-54.
* T. Tiwari, A. Turk, A. Oprea, K. Olcoz and A. K. Coskun, “User-profile-based analytics for detecting cloud security breaches”, 2017 IEEE International Conference on Big Data (Big Data), Boston, MA, 2017, pp. 4529-4535.
* M. Andreev, A. Klausner, T. Tiwari, A. Trachtenberg, A. Yerukhimovich “Nothing But Net: Invading Android User Privacy Using Only Network Access Patterns” *ArXiv preprint 1807.02719* (2018).

**Honors:**

* Recipient of **Trustee Scholarship** (full tuition coverage for all 4 years).
* Recipient of the **Distinguished Summer Research Fellowship** ($10k) at BU for summer of 2018.
* Only freshman to receive the Rafik B. Hariri Institute for Computing and Computational Science [**Engineering Summer Research Award**](https://www.bu.edu/urop/apply/special-awards/hariri-award/) for work at PEAC Lab in the summer of 2016.
* **Undergraduate Research Opportunities Program funding** for research (2 summers, 1 semester).
* On **Dean’s List all semesters**

**Technical Skills:**

* **Experienced in**: Cyber Security (Grad level course; Prof. Egele), IoT Security (PhD level course; Prof. Starobinski), Computer Networks (Prof. Matta), Python (Prof. Giles), C/C++ (Prof. Densmore), Data Structures and Algorithms (Prof. Trachtenberg), Javascript (w/ JQuery), HTML/CSS, InfluxDB, Logic Design (Prof. Starobinski)

**Work Experience:**

***Prof. Ari Trachtenberg***  
- Research Assistant(NIS Lab), Boston University Boston, MA

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| * Researching side channels attacks on Android systems.   **Skills:** Machine Learning, Android apps (Java), Python   * Performing a security analysis of online learning platforms to find ways to cheat. **Skills**: Web-application penetration testing | Jan 2018-Present  Sept. 2017-May 2018 |

***Prof. David Starobinski and Ari Trachtenberg***  
- Research Assistant(NIS Lab), Boston University Boston, MA

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| * Created [WebEth](https://link.springer.com/chapter/10.1007/978-3-319-94147-9_4)—an open-source, distributed, client-side, web-based Ethereum miner in WebAssembly and JavaScript—by modifying the mining algorithm to work within the resource constraints of a browser. * Source code at: <https://github.com/trishutiwari/web-ethereum-mining>   **Skills:** C++ (WebAsm), JS, Ethereum | Sept 2017-Present |

***Prof. Manuel Egele***  
- Teaching AssistantCyber Security (ENG EC 521), Boston University Boston, MA

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| * Assisted Prof. Egele in teaching Cyber Security, a graduate level course. | Jan 2018-May2018 |

***Prof. Ayse Coskun***  
- Research Assistant(PEAC Lab), Boston University Boston, MA

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| * Created [software](https://ieeexplore.ieee.org/abstract/document/8258494/) that would profile each user’s resource usage in Massachusetts Open Cloud (MOC) to create baselines of normality. * Based on this, the software would warn users if their accounts show anomalous behavior, indicative of potentially compromised VMs. * Also mentored a high school student for this research as a part of an outreach program. * **Skills**: Machine learning, InfluxDB, Python | S Sept. 2016-Dec. 2017 |
| * Created a framework that would allow for real-time analysis of power data from MGHPCC, a datacenter in Holyoke. * The framework is a part of the Massachusetts Open Cloud (MOC). * **Skills**: Sensu, InfluxDB, Redis, and Linux | May 2016-July 2016 |

**Additional projects:**

* Developed an android app that tracks a user’s blood caffeine concentration in real time.

- Source code at: <https://github.com/caffeinated-coders/app>

* Created an ASCII based game modeled on Warcraft in C++.
* Developed a virtual piano (python) that allows the user to play, save, or replay songs.