

# RAMLA IJAZ

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51 Prospect Street, New Haven, CT 06511

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## EDUCATION

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- Yale University** **2021-present**  
*P.h.D, Computer Science*
- Rice University** **2017-2020**  
*M.S. Electrical and Computer Engineering* *CGPA: 3.66*
- University of Engineering and Technology, Lahore, PK** **2012-2016**  
*B.Sc Electrical Engineering* *CGPA: 3.873*  
*Ranked 2<sup>nd</sup> overall in a class of 225 students*

## RESEARCH EXPERIENCE

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- Efficient Computing Group** **Houston, TX**  
*Graduate Student* *Jan 2018 – present*
- Investigating the impact of programming language and operating system design on high throughput data analytics
- Department of Electrical Engineering (LUMS)** **Lahore, Pakistan**  
*Research Assistant* *Jan 2017 – June 2017*
- National ICT R&D project, “Indoor Location Based Services (LBS) for mobile devices” with Dr. Adeel Pasha and Dr. Naveed ul Hassan
- Electronics and Embedded Systems Lab (LUMS)** **Lahore, Pakistan**  
*Research Assistant* *July 2016 – December 2016*
- Worked on lightweight encryption algorithms for the Internet of Things with Dr. Adeel Pasha
  - Proposed a hardware implementation of the hash algorithm TAV-128.

## PUBLICATIONS

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- Kevin Boos, N. Liyanage, **R. Ijaz**, and L. Zhong. “*Theseus: Rethinking OS Structure and State Management.*” in Proc. USENIX OSDI 2020.
- Ramla Ijaz** and Muhammad Adeel Pasha. “*Area-efficient and high-throughput hardware implementations of TAV-128 hash function for resource-constrained IoT devices.*” in the 9th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS).
- Ramla Ijaz**, MA Pasha, NU Hassan, and C. Yuen. “*A novel fusion methodology for indoor positioning in IoT-based mobile applications.*” *2018 IEEE 4th World Forum on Internet of Things (WF-IoT)*. IEEE, 2018.

## **INTERNSHIPS**

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### **Microsoft Research, Cambridge (UK)**

*Interned with Bozidar Radunovic*

**Virtual**

*June 2020 – Aug 2020*

- Analyzed each part of the baseband processing pipeline to select candidates for offloading
- Investigated offloading LDPC to GPUs, FPGAs and eASICs.
- Wrote a simulator that would partition baseband processing and inference workloads among machines of an edge data center.

### **Network and Systems Group (LUMS)**

*Interned with Dr. Ihsan Ayub Qazi*

**Lahore, Pakistan**

*June 2015 – Sept 2015*

- Worked on developing algorithms for routing in wireless data center environments
- Attended group sessions to cover the basics of networking and learn of research taking place in the field of networking

## **TEACHING EXPERIENCE**

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### **Yale University**

*Teaching fellow for the class Computer Networks*

**Virtual**

*Jan 2021 – May 2021*

### **University of Engineering and Technology**

*Teacher's Assistant for the class Applied Biology*

**Lahore, Pakistan**

*Sept 2014 – Jan 2015*

### **University of Engineering and Technology**

*Teacher's Assistant for the class Data Structures*

**Lahore, Pakistan**

*Jan 2016 – May 2016*

## **OTHER ACTIVITIES**

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### **Rice Pakistani Student Association**

*Treasurer*

**Houston, TX**

*August 2019 – May 2020*

- Help arrange events to support Pakistani students at Rice and share our culture with the larger Rice community

### **STEM-5**

*Volunteer*

**Lahore, Pakistan**

*Jan 2014 – March 2016*

- Developed lesson plans for grade 4 science coursework
- Taught science to grade 4 kids from underprivileged backgrounds
- Conducted hands on experiments and activities to motivate kids in science

## **AWARDS AND SCHOLARSHIPS**

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- NSDI '21 Diversity Grant recipient
- MobiCom '19 N2Women Student Travel Grant recipient
- OSDI '18 Student Travel Grant recipient
- President's Prize Fellowship (2017)
- Texas Instruments Distinguished Fellowship (2017)
- Graduated with **honors** in B.Sc. Electrical Engineering (2016)

## **SKILLS**

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**Software:** Linux, Proteus, Matlab, Xilinx ISE, ModelSim, Android Studio

**Programming Languages:** Rust, C++, Java, C, verilog