2018 SoNIC Workshop

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About Us

Claire

- Rising Junior
- Computer Science
- Summer research

Regina

- Computer Science and mathematics
- Rising Senior graduating Spring 2020
- Summer Research

SoNIC Results

Day 1:
Learned about packets

- Retrieving and parsing packets to output in ASCII format

Day 2:

- Learned about physical layer of 10G Network Stack
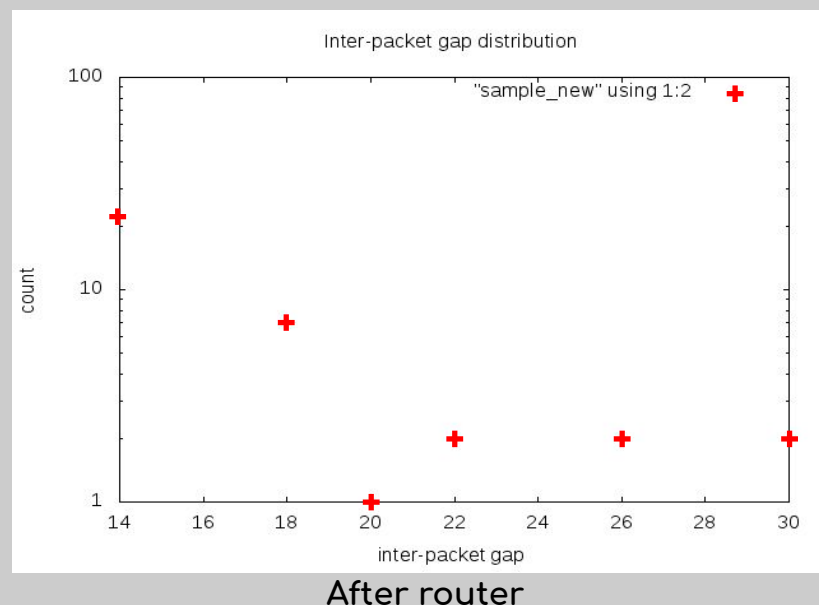 - encoding and scrambling the packets

Day 3:

- Learned about decoding and unscrambling packets

Day 4/5:

- Put all of the building block together so we could convert an ASCII figure into packets
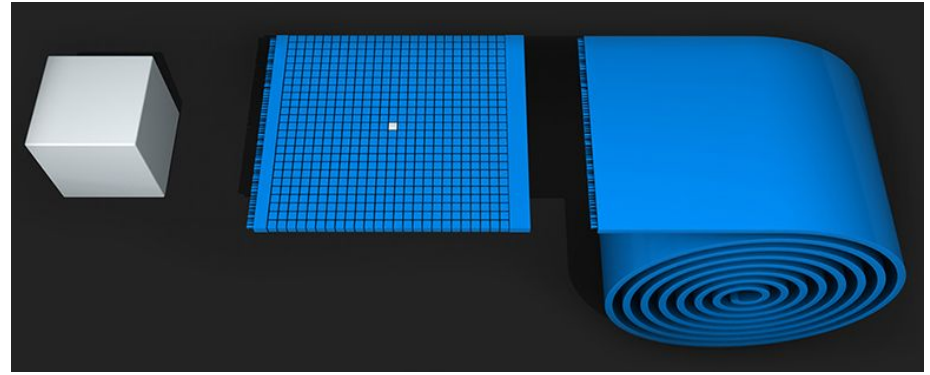 - Saw what happens to the packets when sent through the router

Inter-packet gap distribution

Before router

Inter-packet gap distribution

After router

Blockchain

What is blockchain?

- Digital ledger (ordered log/list of transactions)

Applications of Blockchain?

- Cryptocurrency - bitcoin
- Smart Contact
- Plastic Bank using IBM Blockchain

Takeaways

Claire
- There are many benefits to getting a PhD and not all paths to a PhD are straight paths
- Find your passion but exploring different areas of computer science
- Learned more about cloud computing and network research
- Learn to think more about inclusivity in research

Regina
- Graduate School
  - Masters vs PhD
  - Benefits: Impact and Freedom
- Social impact of technology and Importance of diversity in tech
- Exposure to networking and learned a little about concepts like ethernet, software protocols (IP/TCP)
- Network/Family

Future Plans

Claire

- Continue working on current research as well as look for other research opportunities
- Finish undergrad in Spring 2020
- Consider Masters/PhD

Regina

- Find research internship for Summer 2019
- Finish Undergrad in Spring 2020
- Apply for PhD