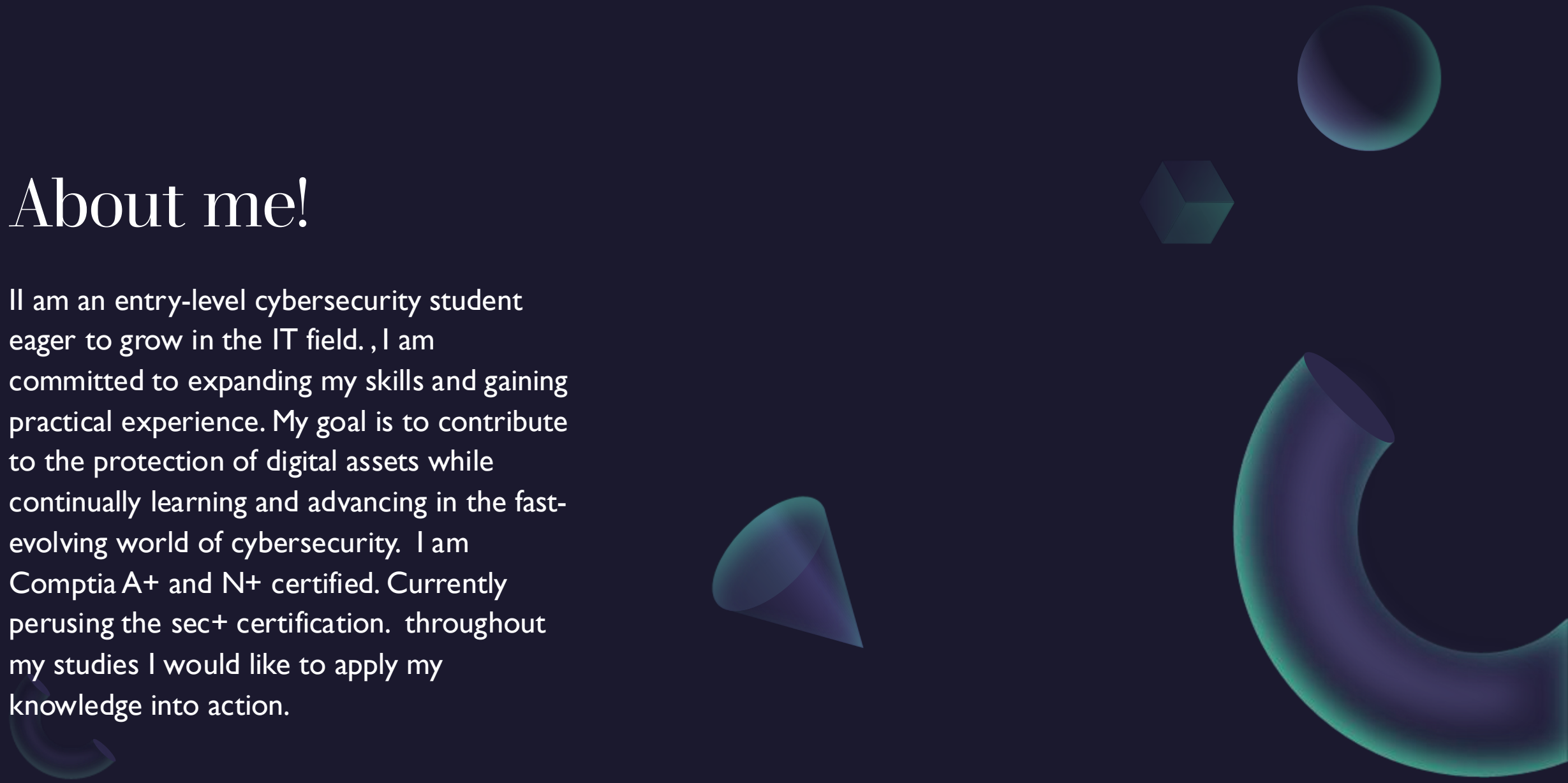
IT projects with cisco packet tracer by Bryan Ortega

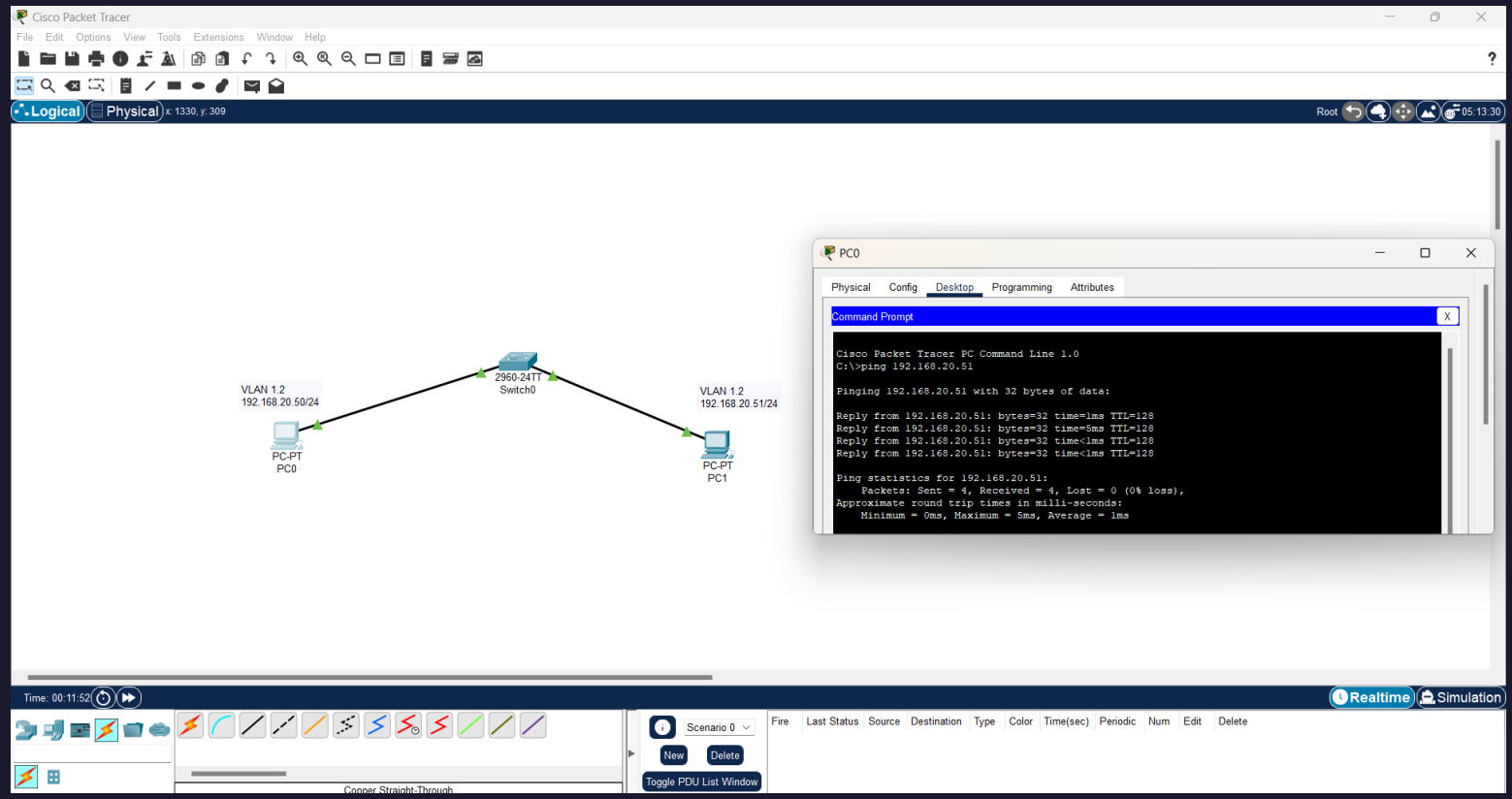
About me!

Il am an entry-level cybersecurity student eager to grow in the IT field. , I am committed to expanding my skills and gaining practical experience. My goal is to contribute to the protection of digital assets while continually learning and advancing in the fast-evolving world of cybersecurity. I am Comptia A+ and N+ certified. Currently perusing the sec+ certification. throughout my studies I would like to apply my knowledge into action.

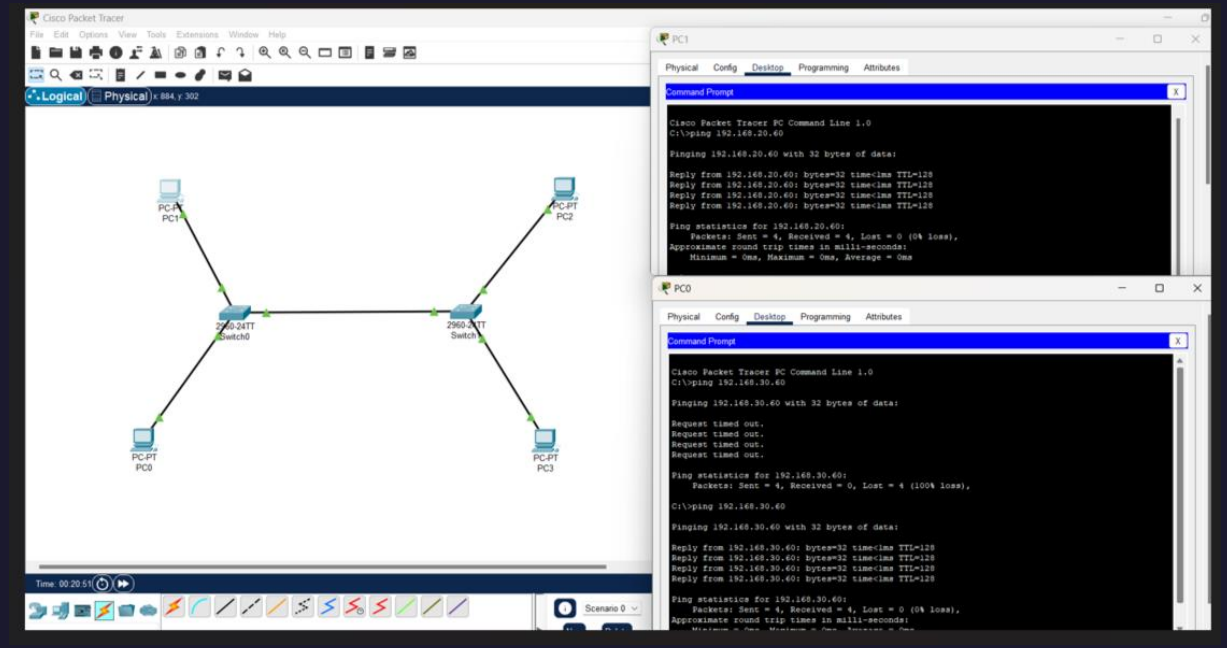


VLAN

A VLAN is a virtual local area network, a layer 2 concept, where devices are connected to the same network. In this image, I used 2 PC, and a 2960 switch, for the cables I used copper straight through cables and connected them to F0/1 and F0/2. I clicked on the PC > config >fastEthernet > IPv4 added the IP address and subnet mask. and then confirmed they were able to ping each other.



TRUNK PORTS



- Trunk ports is a switch port that carries traffic for multiple VLANs over one connection. It helps connect switches or routers, allowing different VLANs to communicate. For my lab I used 4 PCs, 2 switches, and copper straight through cables. I changed the default VLAN, after that I went on CLI, I made VLAN 20 & 30, assigned the VLANS, and enable cross communication and confirmed communication by pinging the PCs.

Routing w L2 switches using sub-interfaces & RoaS

ROAS (router on a stick) refers to enabling communication between different VLANS. In this project sub-interfaces and RoaS allowed a router to send traffic between VLANS using one connection to the L2 switch. this is useful because L3 switches are usually the ones in charge of routing. in this case, using RoaS for L2 switches, can be cheaper and still have L3 switches benefits. In the picture below I used: 2 Pcs, 1 L2 switch, 1 router and copper straight through cables.

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