

# Switches, Algorithms, and Pink Out

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This past week I've learned about how a switch works, researched search and sort algorithms, made some aesthetic and formatting refinements on my digital portfolio, and concluded the pink out fundraiser at my school with student council. I've been looking into how switches deliver data and figure out how to get the right host the right packet. Switches primarily focus on Physical Addresses meaning whenever delivering data it looks for the destination MAC not IP. Within the network switches create a ARP Table of local hosts mapping their MACs to their port and their IPs. If a packet's MAC is not in the table the switch floods out all of its ports with an ARP request of the packet's MAC and waits for a response, if no response is received the packet is dropped. Other than learning about switches and how they use ARP Tables I researched about 4 searching and sorting algorithms. I looked into Linear Search, Binary Search, Bubble Sort, and Insertion Sort algorithms. I studied the way each algorithm accomplishes its purpose, their time complexity, and their best uses. On my digital portfolio, I am still working on implementing social share buttons, but was able to make some refinements on the "About Me" page fixing the justification. I also added consistent spacing with post icons on the home, blog, and research pages. In school, these past few weeks our student council and I were conducting a "Pink Out" fundraiser to raise awareness and fund for the fight against Breast Cancer, and this week we concluded the fundraiser raising over \$3600! Overall this week I enjoyed learning about how a switch works, researching algorithms that can search and sort, refining my digital portfolio, and I am proud of my school for having such a successful fundraiser!