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Arista Networks
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End date: 9/16/2022
Location: Santa Clara, California

What I did

This summer, I added a command line interface feature that rate limits the network packets being sent by a router. This was made for existing Arista customers who were experiencing packet loss due to routers sending packets too quickly.

Technical skills

A technical challenge that I faced in my project was understanding how the router software interactions worked, as my project was adding a feature to this technology. This proprietary design was not taught at school. How I overcame this was going to various company held presentations for interns, reading internal documentation, and trying to explain these concepts to my mentor. After understanding the interactions, I was able to make progress on my project.

Ethics and society

My project provides a convenience to existing Arista customers that want to limit the number of packets being sent out by the router. Packets being sent out too quickly can result in packet loss, which can negatively impact a business that relies on reliable packet delivery. I trust that the Arista chooses customers with ethical practices.

Personal and professional growth

A big takeaway for me is how to approach for help in a professional environment. When I first started, my questions were just the problem that I was facing, resulting in follow ups asking for more context. Now whenever I ask a question, I provide the goal of the implementation, my approach, and the issue, and lastly what I have tried to do to resolve this problem. I also learned that there is also an expectation of independent work before you ask a question. Now, before I ask a question, I make sure to exhaust every option I know. And when I get unblocked, I make sure to document what the individual did so I can resolve the next time I encounter a similar issue.

Connection to UCSD:

CSE 123: Computer Networks went over congestion control and network protocols like BGP which gave me context to my projects and the problems it was solving.

CSE15L: Introduced me to software tools like vim and version control that I had to use in industry.

Takeaway: In this internship I got to see the longevity of code and how important it is it write it the “right way”. This includes proper commenting, variable/function naming, documenting in design documents, and recording the details and expected output in the review request. Designing with the future in mind was also emphasized when designing a feature. This included modularizing code for reusability, and des

Highlights at Arista

Engineering Practices:
Arista prides itself on doing things the right way. Every code that I wrote had to be properly formatted, documented, and tested. Also, the design document for creating a new feature must be peer reviewed before implementation.

Company culture:
Everyone is very friendly, and the culture is social. I had fun joining boardgame nights and playing Ping-Pong with fulltime employees and interns. On my last day, an engineer who I met but was not on my team took me out to lunch.

Open to help:
There were many engineers with decades of experience who would take their time and patiently explain concepts to me. In fact, there was even an engineer on a completely different team that really took the time to help me with a specific feature that needed their team’s expertise.

Perks:
There is a snack room that is generously stocked with Chobani yogurts and green teas. Also, free lunches on Wednesday and a biweekly get together with free food.