Antara: Working in network security

My name is Antara,
I work on the Enterprise Infrastructure Protection Team at Google.
And our main job responsibility is to protect
the infrastructure that all the amazing Google products run on.
I didn't start with a background in computers, and I did my undergrad
in electronics and communication, which is far away from computers.
I took up the challenge to actually pivot into computers with my first job.
That actually led me to explore the security world even more.
And that's how it led to doing my masters in security, getting expertise in that
area and then come to Google as a security engineer.
A typical day in the life of an entry-level network security engineer
would start with solving a problem.
Maybe you're trying to debug, why is this particular endpoint flooded with so
much traffic?
Or why is this endpoint actually slowing down?
And you would start with, okay, let me get to the endpoint.
Let me capture some traffic on the endpoint and
see what kind of traffic is coming in and going out through this endpoint.
So I would typically go back, think about the problem during lunch.
Sometimes things would click.
When you're thinking you might not have thought about a problem from a different
perspective, you might want to actually see how it looks like.
So you would go about maybe doing a lab recreate.
Let me connect these endpoints and let me try to reproduce the issue.
You might see some things in the lab recreate that you might have not
thought of.
And you might need to actually consult with experts from different domains who
might know better about this area.
Get their view on what the problem is, analyze,
show them everything that you have done.
You might get your solution just by talking to people.
It's a pretty busy day, but it's also a very fun day.
It's like solving puzzles all the time, which is pretty exciting.
Some of the best practices in network security that I've learned are,
don't try to always reinvent the wheel.
There are certain protocols,
there are certain algorithms that have been tried, tested,
analyzed, and they have been deemed secure for being used in network security.

The time that you spend on reinventing the wheel is not going to give you the benefits that you need.
So it's always good to think about the unsolved challenges instead of trying to solve the same problem in a different way.
I feel cybersecurity is actually a great field to get into right now, because, as you see, we are in this information age where tech is exponentially growing.
Just getting into this field is just going to be exciting because there are amazing new challenges coming up in this field.

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