

## Job Posting:172220 - Position: W26 Software Engineer (EOS) 172220

<b>Co-op Work Term Posted:</b>	2026 - Winter
<b>App Deadline</b>	09/10/2025 09:00 AM
<b>Application Method:</b>	Through Employer Website
<b>Posting Goes Live:</b>	08/27/2025 11:13 AM
<b>Job Posting Status:</b>	Approved

### ORGANIZATION INFORMATION

<b>Organization</b>	Arista Networks
<b>Address Line 1</b>	9100 Glenlyon Parkway
<b>City</b>	Burnaby
<b>Postal Code / Zip Code</b>	V5J 5J8
<b>Province / State</b>	BC
<b>Country</b>	Canada

### JOB POSTING INFORMATION

<b>Placement Term</b>	2026 - Winter
<b>&lt;b&gt; Job Title &lt;b&gt;</b>	W26 Software Engineer (EOS) 172220
<b>Position Type</b>	Co-op Position
<b>Job Location</b>	Burnaby, BC
<b>Country</b>	Canada
<b>Duration</b>	4 months
<b>Work Mode</b>	Hybrid
<b>Salary Currency</b>	CAD
<b>Salary</b>	78000.0 per year for 40 Major List
<b>Job Description</b>	

Arista Networks is an exciting, fast-growing company creating the best software and hardware for running modern datacenter networks. Based in California with a Canadian office in Vancouver, it is run by Silicon Valley veterans and industry titans Andy Bechtolsheim, Ken Duda, and Jayshree Ullal. Arista is developing a new class of integrated network solutions to address the scalability, performance, and reliability requirements of large-scale high performance computing and cloud datacenters. Arista plays a key role in the datacenters of companies ranging from Facebook to Microsoft, from AOL to Comcast, from ESPN to Netflix, from Citigroup to Morgan Stanley.

Check out [jobs.arista.com/university](https://jobs.arista.com/university) to learn more about our internship program.

#### Job Description

Arista Networks is looking for up-and-coming Software Engineers to join our team as Software Engineering Interns. You will be part of a fast paced, high caliber team building features to run the world's largest data center networks.

Software Engineers at Arista are responsible for all aspects of the development and delivery of software meant to run on the various Arista switches. You will work with your fellow Engineers to understand functional and technical requirements for upcoming projects, design and implement test plans, and the code to bring it all to life. At Arista, our Engineers own their projects from definition to deployment, and you will have a chance to meaningfully contribute to the success of the company, and of our customers.

This role demands strong software engineering fundamentals, and provides an opportunity to build your understanding of, and

break into the computer networking industry. We work on cutting-edge technology, and our products are deployed in tens of thousands of networks around the globe, powering the Internet, AI, and Cloud workloads.

#### **Structure and Mentorship**

- Arista Software Internships are structured in much the same way as the first few months of a full-time job as a Software Engineer
- Each Intern will be assigned a Software Engineer mentor, who will work with you one-on-one throughout your Internship. This is your go-to person for learning about the industry, navigating source code and internal tools, making progress on your projects, for bouncing ideas off, and to help plug you into the broader Software team
- You'll be working on actual production code that actual customers want, and will end up deployed on their networks one day
- Interns typically work on several mentored projects, which start out very small (think 1-2 days), and work their way up to substantial work that they can walk away from, proud that they made a real impact (think 4-8 weeks)

#### **Responsibilities**

- Write functional specifications and design specifications for features related to forwarding traffic in the internet and cloud data centers
- Implement solutions to small-to-medium sized software problems
- Write test plan specifications for small-sized features, and implement automated testing to exercise the cases described in your test plan
- Work with the right tools and programming languages for the task at hand
- Debug problems found by our automated test programs and fix the problems
- Review and contribute to the specs and code written by other team members

## **Additional Information**

#### **Compensations**

- The intern base pay for this role is \$78000 / year.

#### **Hybrid**

- Interns will work in one of our offices 2-3 days per week
- Particular schedules will be worked out with your mentor's and manager's input

#### **Perks**

- Awesome intern events
- Special intern-only swag
- Company-provided MacBook or ThinkPad
- Free snacks, drinks, and coffee
- Onsite gym
- Sports meetups

#### **Interview Information**

The interview will include a 45 minute technical component which will involve coding in C or C++.

#### **Example Projects**

We don't have time for busy work: every project that we do has customers clamoring for it. Along with quick release cycles and an engineer-oriented culture means we always have a slew of interesting projects to tackle. What project you'll work on at Arista will vary a lot depending on our customer demands and your interests. Here are some examples of past projects interns have worked on:

- Latency Based Routing (Networking Protocol)

Our switches run routing protocols that program the hardware with the nexthop for forwarding packets. The nexthop determination is based on some metric of proximity or cost to the destination. For example, the Open Shortest Path First (OSPF) protocol relies

on the Dijkstra's algorithm to minimize the number of hops to reach a destination.

With Latency Based Routing, the preferred path to a destination has the lowest aggregate delay across several hops. Precautions must be taken to ensure that the protocol converges fast on network events and stable to avoid constant changes in the preferred path. This feature is important for latency sensitive applications run by, for example, financial customers who connect to stock exchanges in multiple locations (New York, Chicago, Tokyo) and demand the lowest delays for receiving market information.

- Redefining Load Balancing for Future Applications (Networking Protocol)

The Internet is glued together by the Border Gateway Protocol (BGP) and Equal Cost Multi Path (ECMP) has been the backbone of resilient network topologies by allowing multiple paths to a destination. With ECMP, the failure of a few links have little impact as the traffic transitions to the remaining links.

Customers are now demanding link bandwidth aware traffic load balancing through the Unequal Cost Multi Path (UCMP) extension to BGP which is cutting-edge technology on track to become an RFC standard. The project involves adding ability to match and set/tweak bandwidth advertisements in the BGP policy engine to allow UCMP formation.

- Shared Strings (Software Infrastructure)

Arista is always concerned about memory efficiency as our switches don't have hard drives, and thus cannot page memory to disk. This means that when you run out of memory, you are hosed. And, as we add more features, we consume more memory. One way we could possibly reduce memory is shared strings. This would be a table per process that contains all unique strings instantiated. Whenever you go to instantiate a new string this table would be checked to see if that string already exists and if so, return a pointer to it. This table would have to be very efficient both in speed and size. Another benefit of this approach is that string comparisons could be very fast:  $O(1)$  address comparisons instead of  $O(\text{length of string})$  character comparisons.

- Programmable Operating System on a Switch (Software Defined Networks)

EOS SDK: Arista's EOS operating system is the first truly extensible network operating system on top of Linux. In addition to the standard Linux APIs, the SDK provides a set of higher-level APIs to enable third party developers to write their agents that run in EOS. It's a set of stable, versioned APIs published on GitHub, available both in C++ and Python. Our largest cloud customers leverage EOS SDK to integrate their custom orchestration, automated-management, and provisioning systems with Arista switches.

A significant fraction of today's Internet traffic is delivered to you using custom SDN applications that the largest cloud companies such as Netflix or Facebook built using EOS SDK. Projects here involve significant contributions to the maturing EOS SDK by developing new APIs to configure EOS. Your changes will be on GitHub in our EosSdk repository!

- In-service FPGA Upgrade of Modular Components (Talking to Hardware)

Arista's modular systems have hot swappable components which are inserted or removed on run-time with little performance impact to the system. Such components have FPGAs that are programmed by the hardware team and we would like the ability to easily and reliably upgrade the FPGA image on our products in the field with latest enhancements. This project will give you a chance to get really close to hardware and understand how the system initializes itself.

- VMTracer ACLs (Cloud Datacenter)

Arista is dedicated to supporting datacenter deployments of our customers. Our integration with a VMWare server keeps the switch informed of the MAC addresses of different virtual machines. The switch monitors the traffic to locate and detect migrations of virtual machines. With this VMTracer capability, an EOS switch can keep specified virtual machines in the same virtual LAN (VLAN) segment.

The VMTracer ACLs project provides the ability to seamlessly migrate Access Control List configuration for virtual machines when they migrate. A simple access control list, for example, allows traffic on port 80 for web-server virtual machines or on port 3306 for MySQL virtual machines.

## Job Requirements

### The Ideal Candidate

- loves to program and finds satisfaction in creating a well-written piece of code
- doesn't shy away from hard problems and enjoys the challenge of making reliable software
- wants to work side-by-side with the brightest minds in software, systems, and hardware
- learns how things work, just for fun or out of curiosity
- cares about the business too

### You have (or want to have) experience with some set of

- C / C++
- Python
- Hardware / drivers / embedded systems
- Network protocols such as TCP/IP, Ethernet
- Linux

Expected BS/MS/PhD Computer Science/Electrical Engineering/Computer Engineering or related field in 2026 or 2027

- Strong computer science fundamentals: data structures, algorithms
- Solid communication skills
- Good problem solving, debugging, and software troubleshooting skills
- A get-things-done attitude
- Ability to work with a small team to solving small-sized problem with limited oversight
- Ability to design a solution to a small-sized problem, and implement that solution with a fair bit of help
- Knowledge of any of the following languages is helpful: C++, Python, C, Golang, Java, Javascript
- Knowledge of UNIX or Linux is helpful
- Understanding of IP routing protocols is helpful
- Understanding of Ethernet switching protocols is helpful

<b>Citizenship Requirement</b>	N/A
<b>Position Start Date</b>	January 05, 2026 12:00 AM
<b>Position End Date</b>	April 24, 2026 12:00 AM

## APPLICATION INFORMATION

<b>Application Procedure</b>	Through Employer Website
<b>Cover Letter Required?</b>	No
<b>Special Application Instructions</b>	

**Please click the "I intend to apply to this position" button on SCOPE and also submit your application via the employer's website.**

**Please submit your application at the following link:** <https://smrtr.io/r58gz>

**There is no application deadline. Applications are accepted on a rolling basis and the posting may expire at any time. Students are encouraged to submit their applications as soon as they are ready.**

We'll be reaching out to successful applicants by email to schedule interviews!