Job Posting:169252 - Position: F25 Software Engineer (SDN Fabric Back-end) 169252 E1

Co-op Work Term Posted:	2025 - Fall
App Deadline	06/03/2025 09:00 AM
Application Method:	Through Employer Website
Posting Goes Live:	05/20/2025 10:44 AM
Job Posting Status:	Approved

ORGANIZATION INFORMATION

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

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Placement Term	2025 - Fall
<b> Job Title <b>	F25 Software Engineer (SDN Fabric Back-end) 169252 E1
Position Type	Co-op Position
Job Location	Burnaby, BC
Country	Canada
Duration	4 months
Work Mode	Hybrid
Salary Currency	CAD
Salary	78000.0 per year for 40 Major List

Job Description

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.

Within Arista, the Fabric Team works on the next generation, SDN based datacenter products, which present a cloud-like API to customers and include advanced functionality to transform, record and analyze network traffic that goes beyond what traditional networks can offer. Our work leverages a wide range of technologies and languages, including Java and Kotlin on the JVM, C and C++, Go and Python.

Check out jobs.arista.com/university to learn more about our internship program.

What's Cool at Arista?

Cloud *Software defined networks* *Network virtualization*

Empowered engineers. Our engineers are empowered with full responsibility for their projects. Our management structure is flat and lightweight -- you are in charge of delivering your work from design to code to test to customer shipment.

Insane amount of automation! We have run close to 20 million tests in our mini-data center that operates 24/7. We put a premium on building and using tools that make everyone super-productive. This translates into quicker turn around times on new features and products for increased revenue with smaller teams.

We value openness. No part of the company is off-limits, meaning that our engineers have the chance to work on a variety of different areas. All our interns have the same responsibility as our full timers and get to work side-by-side on important, customer-impacting projects.

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

The Job

Software engineers at Arista deliver product features. The core responsibility is writing the code that drives our products. As a software engineer, you'll drive the whole development process including:
• deciding the features to build
• driving the design
• writing and testing the code
• documenting the feature
• supporting customers in the field

Along the way, you might
• extend and improve the test infrastructure
• hack on our engineering tools

Interview Information

The interview will include a 45 minute technical component which will involve coding (in one of Java, Kotlin, C++, Python or Go).

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 example projects our interns have worked on:

1. Service Node: implement a new protocol analyzer Relevant/Used Technologies: C, dpdk

The Service Node is an extremely high-performance server appliance that we use to transform and pre-analyze line-rate traffic. It can process traffic at several 100GB/s and is built in highly cache- and memory-optimized C code, using the dpdk framework. We are always working on analyzing new analysis/aggregation modes for the SN. In one example project, an intern implemented TCP performance analysis based on the Dapper research project. This is a challenging class of projects for somebody interested in immersing themselves deeply in high performance programming and system architecture.

2. Analytics Node: Detection of New Hosts using Bloom Filters
Applied Technologies: ELK (Elastic Search, Logstash, Kibana), Go or C

Analytics Node is our scale-out visibility appliance. It is built on a curated version of ELK (Elastic Search, Logstash, Kibana), along with custom analytics ingestion and preprocessing stages, which are, for performance, implemented in Go or C. We frequently implement and evaluate new precomputation and analysis stages. An example project would be to implement a detection strategy for new hosts based on Bloom Filters.

3. Virtualization Manager API Recorder/Simulator
Applied Technologies: Virtualization (Nutanix, VMWare ESX/NSX), Programming Language choice flexible.

Together with our Virtualization Team, develop a component that can record interactions between our network fabric and the Virtualization Software, and allows replaying the same interaction. This enables automated tests to run without needing a real Virtualization infrastructure to play with, and can also enable Replay Debugging, which is a powerful tool to find and troubleshoot software problems.

4. Include cEOS L3 Routers in CVML Fabrics
Applied Technologies: Python, Routing, Network Virtualization, Network Namespaces

We have a rich internal orchestration framework that allows us to spin up arbitrary fabrics for testing and development work. To test more advanced scenarios, it would be helpful to include automatically managed IP routers in these setups. The orchestration framework in this case is written in Python. It heavily leverages containers, networking virtualization and routing technologies.

5. Enable Monitoring of Cloud Resources with DANZ Monitoring Fabric
Applied Technologies: Java, Cloud Computing, Distributed Systems, Networking

DANZ Monitoring Fabric (DMF) is an integrated network packet broker and monitoring solution. It goes beyond the traditional network packet broker, offering a scale-out architecture with built-in packet processing and manipulation, real-time packet metadata extraction for the generation of network and application insights, as well as a network time machine to revisit and replay packets and events from the past. DMF is capable of monitoring network traffic in datacenter, campus, and remote office environments. In order to address the monitoring needs of customers who have workloads running in the cloud (e.g. AWS, Azure, GCP), as an intern project we expanded DMF to remotely tap and monitor such cloud workloads. There are many similar and exciting opportunities in DMF as we continue to grow the product to solve real-world problems encountered by our customers.

More Info

You can find out more information about Arista on our website at www.arista.com or about our internship program at jobs.arista.com/university and at jobs.arista.com

Citizenship Requirement	N/A
Position Start Date	September 08, 2025 12:00 AM
Position End Date	December 19, 2025 12:00 AM

APPLICATION INFORMATION

Application Procedure	Through Employer Website

Cover Letter Required? No

Special Application Instructions

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 resume and transcript through the following Google Form: https://forms.gle/8N53SA6eHuTYCsFr6

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!