Job Posting:164465 - Position: S25 Software Engineer (Atlas Platform) 164465

Co-op Work Term Posted:	2025 - Summer
App Deadline	02/28/2025 09:00 AM
Application Method:	Through Employer Website
Posting Goes Live:	12/17/2024 04:04 PM
Job Posting Status:	Expired

ORGANIZATION INFORMATION

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

JOB POSTING INFORMATION

Placement Term	2025 - Summer
<b> Job Title <b>	S25 Software Engineer (Atlas Platform) 164465
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.

The Atlas Team at Arista develops an API-driven server software platform that supports our next-generation SDN-based datacenter software solutions. This work encompasses network and service orchestration, clustering, telemetry, and network management protocols. Our work leverages a wide range of technologies and languages, including Java, Kotlin, 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
- Go
- Python
- Distributed 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. A software engineer is more than just a coding machine; they drive the whole development process including
- deciding the features to build
- driving the design
- writing the code (duh!) and testing
- documenting the feature
- supporting customers in the field

Along the way, you might
- extend and improve the test infrastructure
- hack on our engineering tools, including p4, django, python, rpm, ...
- work with sales and business development

Interview Information

The interview will include a 45 minute technical component which will involve coding in one of Java, Kotlin, Go, Python or C++. We expect you to run and debug your code -- impress us with your problem solving skills along with your coding abilities.

*** Please note that we will not be monitoring the Co-op Portals for applications ***

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 sample potential projects:

1) Application orchestration: Providing iso based firstboot parameters to CVP
Applied Technologies: Kotlin, python, REST API, Virtualization

The CloudVision Appliance (CVA) is a server hardware running various on-premise Arista solutions, including CloudVision Portal (CVP). CVP requires specific parameters (e.g., IP address, username, password) to operate. These are added to an ISO file and mounted as a CD-ROM to the VM during its deployment. This project aims to streamline the ISO file generation process from the

CVA by developing the necessary REST API and backend infrastructure.

2) Protocols: Supporting sampling option for the gNMI streaming
Applied Technologies: Java, python, gRPC, gNMI, YANG, telemetry

gNMI, an open-source protocol, enables collectors to retrieve telemetry data from network devices. This project aims to implement the gNMI server's capability to send telemetry states to the collector at a predefined frequency, specified by the collector during the subscription process. This enhancement will allow for more efficient and customized data collection from network devices. By enabling the collector to define the frequency, the system becomes more flexible and adaptable to various needs.

3) Cloud Vision Managed Recorder Node: Implement RPC request & response fragmentation
Applied Technologies: Go, gRPC, YANG

The Atlas platform facilitates the management of the DMF recorder nodes from the CloudVision Portal (CVP. To address diverse use cases, CVP executes actions on these nodes through an RPC framework provided by Atlas. However, the data exchanged through this framework can occasionally surpass the maximum message size supported by system components. This project aims to enable the handling of large request and response bodies by fragmenting the original request at the transport layer based on a defined threshold, and then reassembling them while keeping the fragmentation process transparent to both the server and the client.

4) Supporting heterogeneous clustering for rolling upgrades
Applied Technologies: Java, Distributed Systems

The Atlas platform software can form a cluster when deployed on multiple nodes. To minimize application downtime during rolling upgrades, this project aims to develop a feature on our clustering solution that allows the cluster to function with different nodes running different software versions and with varying application requirements.

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

APPLICATION INFORMATION

Application Procedure Through Employer Website
Cover Letter Required? No
Special Application Instructions

Please submit your resume and transcript through the following Google Form: https://forms.gle/yqtPTLjy2xt3uYWw9

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!