YAJAT KUMAR

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Experience

Routing/IP Software Engineer 2 – Ciena Ottawa, ON   Feb 2024 - Present

- SAOS 10.x platform — developed distributed control-plane software and built modular Docker-based systems for scalable integration and testing.
- Segment Routing (SR) — contributed to a high-scale, multi-threaded redesign that significantly improved scalability and worked on Flex-Algo.
- IS-IS for SR (Intermediate System to Intermediate System) — multi-instance, multi-area, TLVs.
- C — developed control-plane routing software and wrote unit tests using the CMocka framework to ensure code quality.
- Python — wrote functional and integration tests for simulators and hardware, including packet capture analysis, improving execution time by 43%

Routing/IP Software Engineer 1 – Ciena Ottawa, ON   Feb 2023 - Feb 2024

- Ciena 6500 optical transport platform — developed and maintained control-plane software.
- C/C++ — developed features and fixed issues in performance-critical components.
- Segment Routing (SR) control plane — contributed to SR features and high-availability support.
- PCEP (Path Computation Element Protocol) / SR Policy — implemented SR policy association and PCE-initiated policy support per RFC 9862 and RFC 8281.

Education

Bachelor of Computing Science - Thompson Rivers University   Sept 2019 - Dec 2022

GPA: 4.04/4.33 | Dean's List (6x)   **Kamloops, BC**

Skills

Languages: C, C++, Python, Java

Cloud: AWS**,** Serverless platform, Virtual machines, API gateway, Web app deployment, Databases, DNS

Networking: TCP/IP, Sockets, Segment Routing, PCEP, IS-IS

Projects

Pear Launcher | Java, MySQL   Nov 2017 - Present

- Built an Android home screen interface app with 1M+ installs • 25K+ active users.

OmniROM for OrangePi Zero 2W / 3 | Android

- Custom ROM builds across Tablet, TV, Automotive, 32/64-bit, and Android Go variants.