



**Position: Cloud Technology Research Student**

**Term: Summer 2019 (April 29, 2019 – August 30, 2019)**

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**About Us:**

CENGN is the Centre of Excellence in Next Generation Networks. Our mission is to accelerate the growth of the Canadian Information and Communications Technology (ICT) sector, enabling economic strength and prosperity, as well as innovation and competitiveness in this high-growth global multi-trillion dollar industry.

Through our leading-edge technology infrastructure and expertise, and the creation of a globally recognized ecosystem of partners, CENGN helps Canadian small and medium enterprises overcome commercialization barriers and grow. CENGN collaborates with top ICT multinationals, the public sector, financial institutions, and academic partners, to solidify Canada's leadership in next generation networks for the benefit of all Canadians.

CENGN's ecosystem includes members Bell Canada, Cisco, EXFO, Huawei, Invest Ottawa, Juniper Networks, Mitel, Nokia, Ribbon Communications, Rogers, TELUS, and Wind River. The company also partners with the federal government through the Networks of Centres of Excellence (NCE) and the Ontario government through the Ontario Centres of Excellence (OCE).

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**What We offer:**

- The chance to be part of the growth of a Canadian company driven by providing opportunity for Small & Medium Enterprise (SME) Canadian companies to succeed
- The benefit of a small company in a modern setting where your ideas and opportunities for growth are nurtured and encouraged
- The advantage of working with colleagues passionate about their individual contributions to CENGN
- The gain of working with cutting edge and relevant technology
- The opportunity to work in our state of the art physical and virtual multi-vendor, test, certification and validation platform which provides a unique environment to commercialize advanced products, applications and services
- The experience of developing and deploying wired and wireless technologies that are utilized by applications such as cloud, wireless 5G, autonomous vehicles, broadband Internet and cybersecurity

For more information, visit [www.cengn.ca](http://www.cengn.ca)

## **The Opportunity:**

We are seeking a highly skilled and motivated individual for the Centre of Excellence in Next Generation Networks (CENGN's) Training department for a 4-month co-op term. Reporting to the Senior Manager, Training Programs, the Cloud Technology Research student will assist in creating CENGN Academy's technical training content. The student will also participate in technical projects associated to CENGN Members and Partners as well as helping implement new CENGN services supporting the Small Medium Enterprise projects in a wide variety of next generation technologies. This individual will start the term through a Boot Camp to learn the latest in cloud technologies (such as OpenStack, Docker, Kubernetes), next generation networking principles (Software Defined Networking) and general professional and collaboration skills. Upon completion of this Boot Camp, the student will attempt CENGN's certification exam.

This position involves participation in events which may require the student to be available outside normal working hours on a few occasions during the placement. Applicants should expect to be required to work irregular hours 3-5 times during the contract.

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## **Key Responsibilities:**

Due to the rapid evolution of the emerging network technologies for which CENGN is in the forefront, the Cloud Technology Research Student plays an important role in developing and maintaining CENGN's technical training content, which continuously evolves. The main responsibilities are:

- Collaborate in a professional manner among a team of experienced engineers and trainers
- Investigate and document Next Generation Network technologies, such as cloud systems, software defined networking, security, high-speed wireless and open source technologies
- Demonstrate and articulate in depth understanding of these technologies both internally to CENGN team members as well as externally to CENGN members and partners
- Create effective training materials based on NGN technologies
- Update existing materials according to CENGN's standardized templates
- Work with subject matter experts to ensure training content is relevant for its target audience
- Write clear instructions for lab processes or lab training exercises
- Assist in the development of assessment instruments
- Support CENGN Academy training events
- Contribute to technical projects in NGN technologies as led by CENGN's engineering team
- Support presentations at public events like meetups and other technical forums
- Other duties as required

## **Key Competencies/Qualifications:**

- Desire to learn and develop while exercising and demonstrating solid problem-solving skills
- Ability to work autonomously within a team leveraging online collaboration tools
- Solid practical experience with TCP/IP networking

- Good understanding of hypervisor architecture and principles
- Exposure to and interest in Linux system components and virtualization features (libvirt, KVM/QEMU, kernel/user namespaces)
- Experience in consuming or contributing to Open Source projects
- Excellent interpersonal, organizational, and communication skills
- Strong English language writing and editing skills
- Experience in/with any of the following would be considered an asset:
  - Technical writing
  - Datacenter environment
  - Public and/or private cloud services
  - Cloud Native / microservice architecture using technologies like Docker and Kubernetes
  - Illustration and/or video editing software
  - Next generation security solutions (NGFW, UTM, IDS/IPS, MDM)
  - Agile methodology
  - Atlassian toolset (Confluence, JIRA, etc.)
- Code available for review on public repositories (e.g. Github) would also be an asset

#### **Education:**

- Post-secondary term in Software Engineering, Computer Science, Engineering, IT or related discipline

#### **Eligibility**

Students who are enrolled or have graduated from post-secondary institution programs which provide the relevant background and aptitude to work and enhance their skills as per the requirements of CENGN's listed student postings will qualify for internships under this program.

- Students can be at the undergraduate level (current students) or graduate level (current masters and PhD students), or they may be recent undergraduate and master graduates within three years of graduation from an Ontario-based post-secondary institution
- The student must be eligible to work in Ontario and have employee status at the company for the duration of the internship. Canadian citizen, permanent resident, or on a work/student visa
- The student may not apply with a company where there is any conflict of interest, including, but not limited to, a company where the student or relatives have any control as a major creditor or shareholder or governing board
- As a condition of employment and in accordance to CENGN's Code of Conduct Policy, all students must maintain a clean criminal record. CENGN engages a third party provider to verify student backgrounds prior to the start of the internship

**Languages:**

- English oral, reading and writing
- French oral, reading and writing would be considered an asset
- Competency in any other language is also an asset

Interested and qualified candidates are invited to forward their resume in confidence to CENGN by email to [student-hr@cengn.ca](mailto:student-hr@cengn.ca). Please use "**Cloud Technology Research Student**" as the subject line.

CENGN thanks all applicants for their interest, however, only those selected for an interview will be acknowledged. CENGN is an equal opportunity employer.