

# Supercomputing Resources, Expertise, Support and Training



ACENET is a not-for-profit whose aim is to increase the competitive advantage of industry in Atlantic Canada through the power of supercomputing.

We work with clients who need more **compute, memory** or **storage** capacity, who don't want to invest in and manage complex computing infrastructure, who may find navigating commercial cloud services complicated, who want to develop their in-house skills, or who appreciate having a local team of technical experts invested in their success.

## As an ACENET client, you'll gain:

Large-scale analysis and modelling in areas including:

- machine learning and artificial intelligence
- large data processing
- data visualization
- CFD, FEA
- atomic and molecular simulations
- materials design
- drug design
- bioinformatics
- medical innovations
- and more!

### ACCESS

Use Siku, our state-of-the-art computing system located in Atlantic Canada.

Discover expert help close to home. Our 16-member support team is positioned across the region, giving you ready access to the support you need, and specialists in HPC, cloud, big data, CFD, machine learning, molecular dynamics, computational chemistry, cybersecurity and data management.

Avoid a patchwork computational plan and the headaches of inadequate infrastructure.

### REASSURANCE

With our help, choose a computing approach that suits your project and anticipates future needs.

Our in-house cybersecurity team ensures that we follow leading practices and protocols to secure your data.

Your data stays in Canada.

### CONTROL

Regular usage reports keep you informed. Caps protect against unintended overages.

Work smart. Get the most out of Siku in the least amount of time. We'll show you how.

We're small and nimble, and can tailor system configurations to your needs.

### FREEDOM

Skip the up-front investment, ongoing overhead costs and headaches of purchasing, managing, and maintaining expensive computing architecture.

Save time. Let us install and configure the software to meet your project's needs.

## Let our support team help you

Our local team has a unique combination of advanced degrees in physical and applied sciences, research experience using advanced digital tools, and years of technical experience teaching and supporting high performance computing users from novice to advanced.

**determine your needs • general onboarding • move from Windows to Linux • install, debug and configure software • adjust code • migrate data • optimize efficiency • setup and configure cloud resources • manage data • advise on storage • ongoing support**

ACENET's support staff will help you optimize compute workload efficiency and make the most of our state-of-the-art tools. When you encounter an issue that threatens your project or compromises your timeline, reach out to our experts for in-depth collaboration.

## Strengthen your skillset

We offer training, from novice to advanced, as scheduled events or custom training. We help people who've never used digital research tools get up and running, or the more experienced hone their skills.

**Our training is an investment in your success.**

Explore our full training offering at [ace-net.ca/training/](https://ace-net.ca/training/)

*ACENET is proud to champion Atlantic Canada's talent for innovation and eager to support local industry at all phases of development!*

## Meet Siku: Atlantic Canada's Supercomputing System

Siku was funded in large part by ACOA to provide industry with local access to state-of-the-art computing infrastructure

- **2300 cores with Intel Cascade Lake CPUs**
- **NVIDIA Tesla V100 GPUs to power AI/Machine Learning projects**
- **A high-throughput low-latency EDR Infiniband interconnect**
- **Both batch and cloud-computing interfaces to suit the way you work**
- **A 1.5 PB parallel filesystem with data protected by regular tape back-ups**
- **Web-based graphical exploration of your data with R-Studio or Python, and a virtual desktop in your browser**

**CONTACT US TO DISCUSS YOUR R&D COMPUTING CHALLENGES OR YOUR NEXT INNOVATION**