David R. Cheriton School of Computer Science

The University of Waterloo's David R. Cheriton School of Computer Science is the largest academic concentration of computer science researchers in Canada. We have more than 100 faculty members, 60 administrative, instructional and technical staff, 4,000 undergraduate students and 475 graduate students.

Our CS research areas

- Algorithms and complexity
- Artificial intelligence and machine learning
- Bioinformatics
- Computer algebra and symbolic computation
- Computer graphics
- Cryptography, security, and privacy
- Data systems
- Formal methods
- Health informatics
- Human-computer interaction
- Programming languages
- Quantum computing
- Scientific computation
- Software engineering
- Systems and networking
- Theoretical neuroscience

Our highlights

- Charles Clarke, Jimmy Lin
  Induction into ACM SIGIR Academy
- Jo Atlee, ECE colleague Krzysztof Czarnecki, former students
  10-year most influential paper award, VaMoS 2023
- Daniel Berry, Sri Fatimah Tjong
  Most influential paper award, REFSQ 2023
- Jeremy Chen, Yuqing Huang, Mushi Wang, Semih Salihoglu, Kenneth Salem
  Best Experiment, Analysis and Benchmark Paper Award, VLDB 2022 • 2022 ACM SIGMOD Research Highlight Award
- Ende Jin, Yizhou Zhang, Harvard colleague
  Distinguished paper award, PLDI 2023
- Stacey Watson, Rochester Institute of Technology colleagues
  Best paper award, MobileHCI 2022
- Ryusuke Sugimoto, Christopher Batty, Toshiya Hachisuka
  Best paper award, SCA 2022
- Niki Hasrati, Shai Ben-David
  Best paper award, ALT 2023
- Nikhita Joshi, Antony Albert Raj Irudayaraj, Jeremy Hartmann, Daniel Vogel
  Best paper award, SUI 2022
- Muhammad Sulaiman, Mahdieh Ahmadi, Mohammad A. Salahuddin, Raouf Boutaba, Rogers colleague Aladdin Saleh
  Best paper award, NOMS 2023
- Lindsey Tulloch, Ian Goldberg
  Best student paper award, PETS 2023
- Ramazan Rakhatullin, Andrew Qi Tang, Kevin Wan
  First place, 2023 International Collegiate Programming Contest North America Championship

Our new faculty members

- Sepehr Assadi
  Algorithmic graph theory, communication complexity, online algorithms, algorithmic game theory
- Sihang Liu
  Computer architecture, programming and system support for new and emerging architectures
- Yang Lu
  ML and statistical methods for genomics and proteomics data analysis
- Sujaya Maiyya
  Distributed data management, fault tolerance, data privacy and security
- Pengyu Nie
  ML and NLP for software engineering, software testing and formal verification
- Shlomi Steinberg
  Computer graphics, rendering and light transport, ray and wave optics
- Hong Zhang
  Large-scale data analytics, distributed ML training and serving systems, application and network scheduling, data centre networking, serverless computing and cloud computing

Cheriton School of Computer Science, top-ranked CS program in Canada for third year in a row
Maclean’s 2023 University Rankings

Cheriton School of Computer Science, 22nd CS program internationally
2022 Quacquarelli Symonds World University Subject Rankings

Robin Cohen
Lifetime Achievement Award in Computer Science, CS-Can | Info-Can

Jimmy Lin
ACM Fellow

Wenhu Chen, Xi He, Gautam Kamath
Canada CIFAR AI Chairs

Sepehr Assadi
Sloan Research Fellowship

Distinguished Professor Emeritus Don Cowan
J.W. Graham Medal in Innovation and Computing

University of Waterloo | FACULTY OF MATHEMATICS | DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

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