



计算机相关专业的报考以及就业方向



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- 家乡：上海崇明岛



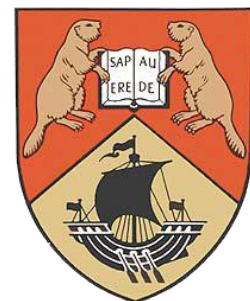
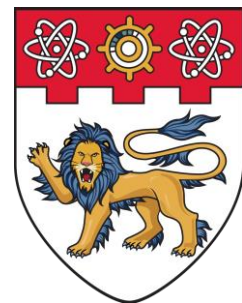
- 学习经历：

- 本科：同济大学，1996-2000
- 硕士：同济大学，2000-2002
- 博士：上海交通大学，2003-2006
- 博士：滑铁卢大学，2008-2012




- 工作经历：

- 新加坡南洋理工大学，Assistant Professor
- 新不伦瑞克大学，Associate Professor
 - IEEE Fellow
 - University Research Scholar
 - 研究兴趣：网络空间安全







Rongxing Lu 

 FOLLOWING

IEEE Fellow, University Research Scholar, Assoc. Prof. of CS, [University of New Brunswick](#)

Verified email at unb.ca - [Homepage](#)

[Security](#) [Privacy](#) [Cryptography](#) [Internet of Things](#) [Wireless Communications](#)

TITLE  

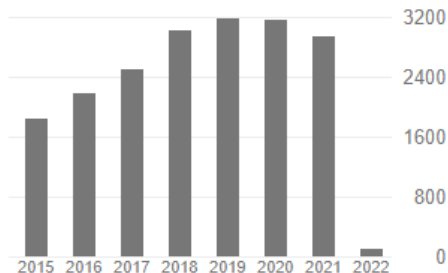
CITED BY YEAR

- [Smart community: an internet of things application](#) 831 2011
X Li, R Lu, X Liang, X Shen, J Chen, X Lin
IEEE Communications magazine 49 (11), 68-75
- [ECP: Efficient conditional privacy preservation protocol for secure vehicular communications](#) 799 2008
R Lu, X Lin, H Zhu, PH Ho, X Shen
INFOCOM 2008. The 27th Conference on Computer Communications. IEEE, 1229-1237
- [EPPA: An efficient and privacy-preserving aggregation scheme for secure smart grid communications](#) 725 2012
R Lu, X Liang, X Li, X Lin, X Shen
IEEE Transactions on Parallel and Distributed Systems 23 (9), 1621-1631

Cited by

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	All	Since 2017
Citations	24714	14976
h-index	78	62
i10-index	267	212



Public access

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<https://scholar.google.com/citations?user=DeB XK0UAAA AJ&hl=en>



University of New Brunswick Computer Science Ranking

📍 Canada 🏛️ Established: 1785 👥 Scholars: 2

Top Scientists

Overview

👥 Top scientists

Position in the ranking is based on each scientist's h-index using data compiled from Microsoft Graph by May 25th 2021.



This ranking lists all top researchers from the Computer Science discipline and affiliated with University of New Brunswick. There are a total of 2 researchers included with 0 of them also being included in the global ranking. The total sum for the h-index values for top scientists in University of New Brunswick is 111 with a mean value for the h-index of 55.50. The total sum of publications for top scientists in University of New Brunswick is 538 with the mean value for publications per scientist of 269.00.

Search by name



Sort by Rank



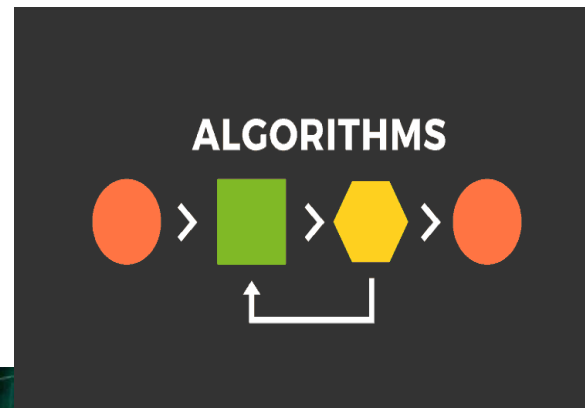
World	National	Scholar	H-index	Citations	Articles on DBLP
856	30	 Rongxing Lu University of New Brunswick, Canada	75	22,516	349
4144	182	 Ali Ghorbani University of New Brunswick, Canada	47	13,280	189

<https://research.com/university/computer-science/university-of-new-brunswick>

- 人工智能

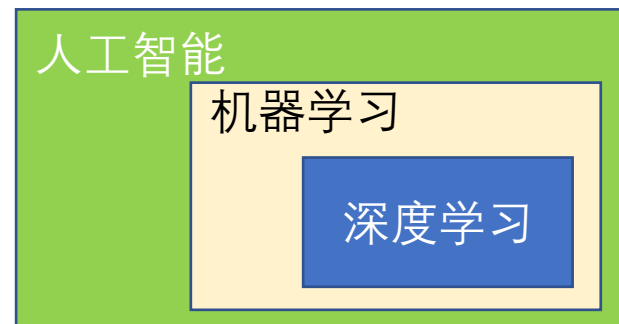
- 人工智能三要素

- 数据
 - 算法
 - 算力



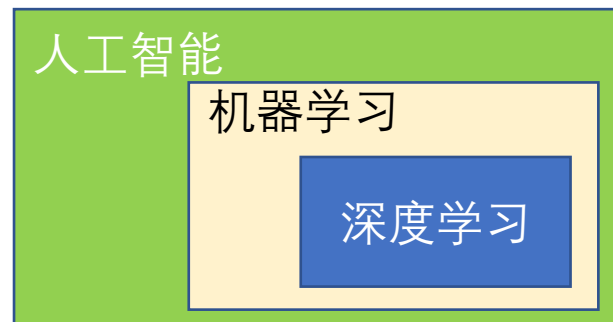
- 计算机学科的人才培养

- 数据
 - 算法
 - 算力



- 计算机学科的人才培养

- 数据
- 算法
- 算力



- 如果“天下无贼”，我们无须担心安全隐私问题！
- 然而，“天下无贼”这个假设并不成立，现在的网络空间还时时受到安全隐私的威胁！
- 因此，网络空间安全也是计算机当前研究热点！

- 计算机学科的人才培养

- + 网络空间安全





- UNB
 - History of 230+ years
 - #1 for student reward in Atlantic Canada
 - 2 campus – Fredericton and Saint John
 - 75+ programs
- UNB计算机学院 <https://www.unb.ca/fredericton/cs/>
 - 1st faculty of computer science in Canada -1990
 - Specialization in Cybersecurity
 - Minor in Computer Science
 - Concurrent Degree Program with Art /Science
 - Co-operative Education Program/Professional Experience Program
 - Certificate in Software Development
 - Computer Science(BCS) Entrance Program
 - Centre for Advanced Studies—Atlantic
 - <https://www.unb.ca/research/casatlantic/index.html>
 - HCI Lab 人机交互 human-computer interaction
 - <https://hclilab.github.io>
 - Canadian Institution of Cybersecurity 网络空间安全
 - <https://www.unb.ca/cic/>



- Admission Requirements – core course
 - Bachelor of Computer Science
- NB applicants
 - English 122/Français 10411 (min. grade of 60%)
 - Pre-Calculus A 120/Mathématiques 30331C* (min. grade of 65%)
 - Pre-Calculus B 120/Mathématiques 30411C (min. grade of 65%)
 - One of Biology 122/Biologie 53421, Chemistry 122/Chimie 52411 or Physics 122/Physique 51411** (min. grade of 65%)
 - One elective - Group 1 (min. grade of 60%)
 - One elective - Group 1, 2, or 4 (min. grade of 60%)
 - **Minimum admission average 75%**

具体参见: <https://www.unb.ca/admissions/requirements/>



- Admission Requirements – core course
 - Bachelor of Science in Software Engineering
- NB applicants
 - English 122/Français 10411 (min. grade of 70%)
 - Pre-Calculus A 120/Mathématiques 30331C* (min. grade of 70%)
 - Pre-Calculus B 120/Mathématiques 30411C (min. grade of 70%)
 - Chemistry 122/Chimie 52411 (min. grade of 70%)
 - Physics 122/Physique 51411** (min. grade of 70%)
 - One elective - Group 1, 2 or 4 (min. grade of 60%)
 - **Minimum admission average 75%**
 - *Mathématiques 30411B is acceptable for admission. However UNB strongly recommends Mathématiques 30331C as the preferred pre-requisite to Mathématiques 30411C.

具体参见: <https://www.unb.ca/admissions/requirements/>



- Admission Requirements – core course
 - Bachelor of Computer Science
- International applicants
 - Senior English Literature (60% or higher)
 - Senior Math, including Pre-Calculus (65% or higher)
 - 1 of Senior Biology, Senior Chemistry or Senior Physics (65% or higher)
 - 1 elective from group 1 (60% or higher)
 - 1 elective from group 1 or 2 (60% or higher)
 - **Minimum admission average: 75%**
 - **Campus: Fredericton**
- International applicants whose native language is not English:
 - TOEFL IBT with a **minimum** overall score of 85
 - IELTS or IELTS Indicator with a **minimum** overall score of 6.5
 - CAEL CE or CAEL Online with a **minimum** overall score of 60
 - Pearson Vue Test with a **minimum** score of 59
 - Cambridge English Assessment C1 advanced or C2 proficiency with a minimum score of 176
 - Duolingo with a **minimum** overall score of 115

具体参见: <https://www.unb.ca/admissions/requirements/>



• Curriculum Requirement

- [CS 1073](#) Introduction to Computer Programming I (in Java)
- [CS 1083](#) Introduction to Computer Programming II (in Java)
- [CS 1103](#) Introduction to Databases
- [CS 1303](#) Discrete Structures
- [CS 2043](#) Software Engineering I
- [CS 2253](#) Machine Level Programming
- [CS 2263](#) Systems Software Development
- [CS 2333](#) Computability and Formal Languages
- [CS 2383](#) Data Structures and Algorithms
- [CS 3383](#) Algorithm Design and Analysis
- [CS 3413](#) Operating Systems I
- [CS 3853](#) Computer Architecture and Organization
- [CS 3873](#) Net-centric Computing
- [CS 3997](#) Professional Practice
- 5 Math core course
- 10 breath elective course in subjects other than computer science and mathematics
- 5 free elective

具体参见:

<https://www.unb.ca/academics/calendar/undergraduate/current/frederictonprograms/bachelorofcomputerscience.html#curriculum>



- **Curriculum Requirement**
- [CS 2413](#) Information Security
- [CS 2613](#) Programming Languages Lab
- [CS 3503](#) Systems Analysis, Design and Project Management
- Core courses provided by faculty of English, Engineering and Science
- Basic computer science core course – CS + Math core
- Basic Science Electives
- 4 technical elective courses
- 3 Complementary Studies Electives
 - course addressing the impact of technology on society

具体参见:

<https://www.unb.ca/academics/calendar/undergraduate/current/frederictonprograms/bachelorofscienceinsoftwareengineering.html>



- Specialization in Cybersecurity
 - Pass (c or higher) 6 cybersecurity courses
- Minor in Computer Science
 - Usually provide for students from other faculty
 - Pass (c or higher) 6 computer science course
- *Concurrent BA/BCS Degree Program or
Concurrent BCS/BSc Degree Program*
 - Admission requirement: need to satisfy requirements of both faculty
 - Curriculum requirement: need to satisfy requirements of both faculty
 - ** need to contact course advisor from both faculty



- Co-operative Education Program (Co-op)/Professional Experience Program (PEP)
 - For Computer Science students who has a minimum GPA of 2.7 and completed at least first year study
 - Targeting on put classroom knowledge to practical and profitable for students to use in the Canadian workplace
 - Minimum of 16 months' working time

具体参见:

<https://www.unb.ca/academics/calendar/undergraduate/current/frederictonprograms/bachelorofcomputerscience.html#coop>



- *Certificate in Software Development*
 - Pass (c or higher) for 10 (6+4) course
 - For individuals.
- *Computer Science (BCS) Entrance Program*
 - High School students who **do not meet** the admission requirements for direct entry to the BCS program but have a **passing grade** in each of the required courses and a **minimum admission average of 60% MAY** be able to have a full-time admission



- Fall term + Winter term
 - Bachelor of Computer Science
 - \$9,428.50 - Canadian Students
 - \$19,939.00 – International students
 - Bachelor of Science in Software Engineering
 - \$10,553.50 - Canadian Students
 - \$21,064.00 – International students
- Co-op/PEP term
 - \$119 per term

**\$80 - First Year Orientation Fee – Fredericton

**\$40 - First Year Orientation Fee – Saint John

具体参见:

<https://www.unb.ca/finance/financial-services/undergraduate/fredericton.html>



- Pursue graduate studies
- Work in industry
- Work in academia





谢谢!