Dr. Eric Aubanel
Professor

Research Interests:
- Parallel Heterogeneous Algorithms for Computational Science
- High Performance Scientific Computing
- Usability of Parallel Programming Systems
- Accelerating Java using Massive Multi-Core

Biography:
Dr. Eric Aubanel has been in the Faculty of Computer Science at UNB since 2000. He received his Bachelors of Science from Trent University and his PhD from Queen’s University. Eric’s current research includes the development of tools and algorithms to support scientific computing on heterogeneous distributed resources, including manycore accelerators. He is also beginning a study of the usability of parallel programming systems. In 2016 he published a graduate textbook on parallel computing, Elements of Parallel Computing, with CRC Press. He is a team member on an IBM CAS project on performance optimization of the IBM Java Virtual Machine on multicore processors. He also collaborates with Envenio, Inc. on developing cutting edge Computational Fluid Dynamics software.

For More Information:
https://www.cs.unb.ca/people/aubanel
Dr. Scott Bateman
Assistant Professor

Research Interests:
- Human-Computer Interaction
- Information Visualization and Visual Analytics
- Computer Supported Collaboration
- Games and Gamification

Biography:
Dr. Scott Bateman is the director of the Human-Computer Interaction Lab, where his research is motivated by designing and building technology that works best for people. His work focuses on novel input interactions, visual analytics, computer-based collaboration, and games for learning and health. He joined UNB in the summer of 2015, after 2.5 years as at the University of Prince Edward Island. He received a PhD and Master’s in Computer Science from the University of Saskatchewan, and has worked as a researcher with Microsoft Research, IBM Watson Research, the University of Calgary and the National College of Ireland. Dr. Bateman has been an Associate Editor for several leading international journals and conferences. A frequent collaborator with industry, the HCI Lab has ongoing collaborations with several companies, and has completed several industry R+D projects supported by NBIF, NSERC and NRC.

For More Information:
https://www.cs.unb.ca/people/scottb
Dr. Luigi Benedicenti
Dean

Research Interests:
- Software Agents
- Software Process
- New Media Technology

Biography:
Dr. Luigi Benedicenti is a full professor and dean in the Faculty of Computer Science at the University of New Brunswick. Benedicenti received his Laurea in Electrical Engineering and Ph.D. in Electrical and Computer Engineering from the University of Genoa, Italy. He is a Professional Engineer licensed in Saskatchewan and a licensed Italian Engineer. His collaborative network extends beyond Saskatchewan with TRLabs and IEEE, and Canada through collaborative work with colleagues in Europe, South East Asia, and North America.

Benedicenti’s current research is in three areas: Software Agents, Software Process, and New Media Technology. He envisions the unification of platform, tools, and optimizations for the provision of persistent distributed digital services, regardless of people’s location and delivery device.

For More Information:
http://www.cs.unb.ca/people/lbenedic
Dr. David Bremner  
Professor

Research Interests:
- Programming Languages
- Computational Geometry
- Mathematical Optimization

Biography:
David Bremner holds three degrees in Computer Science, a B.Sc. Hons. from the University of Calgary (1990), an M.Sc. from Simon Fraser University (1993) and a Ph.D. from McGill University (1997). David spent two years as an NSERC postdoctoral fellow in the Department of Mathematics at the University of Washington from 1997 to 1999. Since 2000 David has been a faculty member at the University of New Brunswick, and is currently a Professor of Computer Science with a Cross Appointment to the Department of Mathematics and Statistics. Recently, David has made extended research visits to the Technical University of Berlin (as an Alexander von Humboldt Fellow), the University of Rostok, and Kyoto University.

For More Information:  
https://www.cs.unb.ca/people/bremner
Dr. Paul Cook
Assistant Professor

Research Interests:
- Natural Language Processing
- Computational Linguistics
- Social Media

Biography:
Dr. Paul Cook received his PhD in Computer Science from the University of Toronto in 2010, and joined the University of New Brunswick Faculty of Computer Science in 2014. He works in the areas of natural language processing and computational linguistics. Dr. Cook's research interests include lexical semantics, word sense induction, multiword expressions, social media text processing, and corpus construction and analysis. He is also particularly interested in applications of natural language processing in lexicography for building better dictionaries and keeping dictionaries up to date.

For More Information:
https://www.cs.unb.ca/people/ccook1
Dr. Weichang Du
Professor

Research Interests:
- Software Engineering
- Knowledge Engineering
- Programming Languages and Systems
- Services and Cloud Computing
- Big Data Analytics Software

Biography:
Dr. Weichang Du has worked with the Faculty of Computer Science at UNB for the past 19 years. He received his Master’s and PhD in Computer Science from the University of Victoria. He is also a professional engineer in software engineering. His current research activities include software-knowledge co-engineering, context-aware distributed knowledge systems and applications, analytics software for business big data, and service-oriented software pattern implementation.

For More Information:
https://www.cs.unb.ca/people/wdu
Dr. Gerhard W. Dueck
Professor

Research Interests:
- Reversible Logic
- Multiple-Valued Logic
- Minimization of Logic Functions
- Symmetric Functions
- Simulated Annealing
- Reed-Muller Expansions
- Digital Design
- Garbage Collection Techniques for the Java Virtual Machine

Biography:
Dr. Gerhard Dueck received his Master of Science in Computer Science and his PhD from the University of Manitoba and has been a member of the University of New Brunswick’s Faculty of Computer Science for roughly 17 years. He is the section Treasurer of the IEEE New Brunswick Chapter, a member of the Technical Committee on Multiple-Valued Logic and a member of the editorial board of the Journal of Multiple-Valued Logic and Soft Computing.

For More Information:
https://www.cs.unb.ca/people/gdueck
Dr. Patricia Evans
Professor and Assistant Dean or Research, Graduate Studies, and Industry Outreach

Research Interests:
♦ Algorithm Design and Analysis
♦ Bioinformatics
♦ Problem Analysis
♦ Computational Complexity
♦ Parameterized Complexity
♦ Graph Theory

Biography:
Dr. Patricia Evans completed her Master of Science and PhD at the University of Victoria and has been a member of the University of New Brunswick’s Faculty of Computer Science for roughly 19 years. Her current projects include the design and implementation of algorithms for RNA comparison using secondary structures, haplotype inference for pedigrees, biological network comparison, and parallelization techniques for dynamic programming.

For More Information:
https://www.cs.unb.ca/people/pevans
Dr. Michael Fleming
Professor

Research Interests:
- Artificial Intelligence
- Preference Elicitation
- Decision Theory
- User Modeling and Adaptive Systems
- Intelligent Agents and Multi-agent Systems

Biography:
Dr. Michael Fleming has held various positions in academia for the past 13 years, including Assistant Dean. He received his Bachelor of Science from Mount Allison University, and his Master of Mathematics degree and PhD from the University of Waterloo. He is interested in probability and utility theory and how they may be used in aiding professionals in other fields. He has supervised or co-supervised more than 20 graduate students and more than 50 undergraduate theses/reports.

For More Information:
https://www.cs.unb.ca/people/mwf
Dr. Ali Ghorbani  
Professor, Tier 1 Chair in Cybersecurity, and Director of the Canadian Institute for Cybersecurity (CIC)

Research Interests:
- Network & Information Security
- Complex Adaptive Systems
- Critical Infrastructure Protection
- Machine Learning and Data Mining

Biography:
Dr. Ghorbani has held a variety of positions in academia for over 35 years. He is currently a professor in the Faculty of Computer Science here at UNB and the Director of the Canadian Institute of Cybersecurity (CIC). He received his PhD and Master’s in Computer Science from the University of New Brunswick and the George Washington University, USA. Dr. Ghorbani has supervised more than 160 research associates, postdoctoral fellows, and graduate students and authored more than 200 peer reviewed research papers in journals and conference proceedings. He is the co-inventor of 3 awarded patents in the area of Network Security and Web Intelligence. Dr. Ghorbani is the co-Editor-In-Chief of Computational Intelligence, and the coordinator of the Privacy, Security and Trust research network (PST*net).

For More Information:
https://www.cs.unb.ca/people/ghorbani
Dr. Arash Habibi Lashkari  
Research Associate  

Research Interests:  
- Cyber Security  
- Big Security Data Analytics  
- Malware and Intrusion Detection  
- Internet Traffic Analysis (Dark web Detection)  

Biography:  
Dr. Arash Habibi Lashkari is a research associate at the Faculty of Computer Science, University of New Brunswick. He has more than 21 years of academic and industry experience. Dr. Lashkari has been awarded 2 gold medals as well as 12 silver and bronze medals in international competitions around the world. In addition, he is the author of 10 books in English and Persian on topics including cryptography, network security, and mobile communication as well as over 80 journals and conference papers concerning various aspects of computer security. His current research focuses on cyber security, big security data analysis, Internet Traffic Analysis and the detection of malware and attacks.  

For More Information:  
https://www.cs.unb.ca/people/alashkar
Dr. Kenneth Kent
Professor

Research Interests:
- Research Interests:
- Hardware/Software Co-Design
- Virtual Machines
- Reconfigurable Computing
- Software Engineering
- Embedded Systems

Biography:
Dr. Kenneth Kent received his Master of Science and PhD from the University of Victoria. He has held various positions within the Faculty of Computer Science for the past 14 years, including Director of the Information Technology Centre. He currently heads the Reconfigurable Computing Group and is the Director of the IBM Centre for Advanced Studies - Atlantic. He has supervised about 70 graduate students, postdocs, and researchers and has published about 100 refereed journal articles and conference papers. Dr. Kent is an Honorary Professor at Hochschule Bonn-Rhein-Sieg where he is also involved in research through the Institute for Visual Computing. Dr. Kent was recognized for his contributions to the J9 Java Virtual Machine with the Faculty Fellow of the Year and Project of the Year (Principle Investigator) by the IBM Centre for Advanced Studies. In addition to his academic work, Dr. Kent is a co-founder and Chief Product Officer of WEnTech Solutions Inc, Provincial runner-up in the 2017 New Brunswick Innovation Foundation Breakthru competition, a software provider for assessing waste-to-energy projects for optimal efficiency.

For More Information:
https://www.cs.unb.ca/people/ken
Dr. Rongxing Lu  
Assistant Professor

Research Interests:
- Applied Cryptography
- Privacy Enhancing Technologies
- IoT-Big Data Security and Privacy

Biography:
Rongxing Lu has been an assistant professor at the Faculty of Computer Science (FCS), University of New Brunswick (UNB), Canada, since August 2016. Before that, he worked as an assistant professor at the School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore and as a Postdoctoral Fellow at the University of Waterloo. He was awarded the most prestigious “Governor General’s Gold Medal”, when he received his PhD degree from the Department of Electrical & Computer Engineering, University of Waterloo, Canada, in 2012; and won the 8th IEEE Communications Society (ComSoc) Asia Pacific (AP) Outstanding Young Researcher Award, in 2013. He is presently a senior member of IEEE Communications Society. Dr. Lu currently serves as the Secretary of IEEE ComSoc CIS-TC (Communications and Information Security Technical Committee). Dr. Lu is the Winner of 2016-17 Excellence in Teaching Award, FCS, UNB.

For More Information:  
https://www.cs.unb.ca/people/rlu1
Dr. Dawn MacIsaac
Associate Professor

Research Interests:
- Biomedical Engineering
- Software Engineering
- Knowledge Engineering
- Signal Processing

Biography:
Dr. Dawn MacIsaac has been with the University of New Brunswick’s Faculty of Computer Science for roughly 14 years and has held various positions including Coordinator of Software Engineering. She received her Master of Science in Engineering and PhD from the University of New Brunswick and has published 49 peer reviewed papers and has supervised 25 graduate students. She is a member of the Editorial Board of the Journal of Electromyography and Kinesiology and is a PEng registered with the Association of Professional Engineering and Geologists of New Brunswick (APEGNB).

For More Information:
https://www.cs.unb.ca/people/dmac
Dr. Andrew McAllister  
Professor and Assistant Dean Undergraduate  

Research Interests:  
- Information Systems  
- Software Automation  
- Software Development Processes  
- Standard Techniques for Data Modeling

Biography:  
Dr. Andrew McAllister has held various positions in academia for the past 29 years, including Assistant Dean and Acting Dean. He received his Master of Science in Computer Science from the University of New Brunswick and his PhD from the University of Saskatchewan. His primary research area is legacy information system modernization. Current activities include the development of scalable source code processing approaches for Post-Production Software Management (PPSM), as well as extraction of data flow information from complex multi-language information systems.

For More Information:  
https://www.cs.unb.ca/people/andrewm
Dr. Przemyslaw R. Pochec
Associate Professor

Research Interests:
- Data Communication
- Image Processing
- Three-dimensional Computer Vision

Biography:
Dr. Przemyslaw Pochec received his Masters of Science in Computer Science and PhD from the University of New Brunswick’s Faculty of Computer Science and has been a professor with the faculty for roughly 27 years. His recent work is on a queueing model for a parallel computer system, modelling data communication systems and on stereo vision matching algorithms.

For More Information:
https://www.cs.unb.ca/people/pochec
Dr. Suprio Ray
Assistant Professor

Research Interests:
- Big Data and Database Management Systems
- Spatial, Spatio-Temporal and Graph Data Processing
- Parallel and Distributed Systems; Cloud Computing
- Operating Systems and Language Virtual Machines (JVM)
- Internet of Things (IoT), Smart Grid and Healthcare Analytics

Biography:
Dr. Suprio Ray completed his MSc (Computer Science) at the University of British Columbia and his PhD (Computer Science) at the University of Toronto. He currently leads the Big Data Systems and Analytics Lab. He is also associated with the IBM Centre for Advanced Studies Atlantic and Canadian Institute for Cybersecurity (CIC). He previously worked for a number of years as a software engineer, in companies including, Oracle, Lucent Technologies (currently, Nokia), Webtech Wireless and Clevest Solutions. He won two best paper awards and is the co-inventor in a US patent application. He was a recipient of the Harrison McCain Foundation Young Scholars award.

For More Information:
https://www.cs.unb.ca/people/sray
Dr. Wei Song  
Associate Professor and Coordinator of Software Engineering

Research Interests:
- Mobile Social Networks
- Internet of Things
- Vehicular Networks
- Mobile Cloud Computing
- Energy-efficient Wireless Networks
- Wireless Sensor Networks
- Cooperative Wireless Networks

Biography:
Dr. Wei Song received her Ph.D. degree from the University of Waterloo, Waterloo, ON, Canada, in 2007. In 2009, she joined Faculty of Computer Science, University of New Brunswick, Fredericton, NB, Canada, where she is now an Associate Professor. She has served a number of roles including the Coordinator of Software Engineering. She was a recipient/co-recipient of the UNB Merit Award in 2014, the Best Student Paper Award from IEEE CCNC 2013, the Top 10% Award from IEEE MMSP 2009, and the Best Paper Award from IEEE WCNC 2007. She is a Senior Member of IEEE and the Communications/Computer Chapter Chair of IEEE New Brunswick Section. Her current research interests include mobile social networks, Internet of things, vehicular networks, mobile cloud computing, energy-efficient wireless networks, wireless sensor networks, and cooperative wireless networks.

For More Information:
https://www.cs.unb.ca/people/wsong
Dr. Natalia Stakhanova
Assistant Professor and NBIF Research Chair in Cyber Security

Research Interests:
- Mobile security
- Obfuscation & Reverse engineering
- Security Data Analytics
- Malware analysis
- Intrusion Detection and Response

Biography:
Dr. Natalia Stakhanova completed her Ph.D. work in Network Security in 2007 at Iowa State University. Her work revolves around building secure systems. Working closely with industry on a variety of R&D projects, she developed a number of technologies that resulted in 3 patents in the field of computer security and have been adopted by high-tech companies. Natalia Stakhanova is the recipient of the UNB Merit Award, the McCain Young Scholar Award and the Anita Borg Institute Faculty Award. She is a strong advocate of Women in IT and co-founder of CyberLaunch Academy, an initiative that aims to promote science and technology among children.

For More Information:
https://www.cs.unb.ca/people/natalia
Dr. Huajie Zhang
Professor

Research Interests:
♦ Machine Learning
♦ Data Mining
♦ Graphical and Probabilistic Models and Reasoning
♦ Intelligent Systems

Biography:
Dr. Huajie Zhang has been with the University of New Brunswick’s Faculty of Computer Science for roughly 14 years. He received his Master of Science in Computer Science from the Harbin Institute of Technology and completed his PhD through the University of Western Ontario. He is currently working on Deep Learning, Transfer Learning, Semi-supervised Learning, Learning Probabilistic Models, and Efficient Learning Algorithms for Large Data.

For More Information:
https://www.cs.unb.ca/people/hzhang