

SUMMARY

I have more than 15 years of industry experience in machine learning research and software development, with 10 years spent in the financial technology sector. I have continued to collaborate with my colleagues at both Dalhousie University and Memorial University of Newfoundland with whom I have published 3 book chapters, 6 journal publications, and 26 full text conference papers. I am a Senior Member of the IEEE and Professional Member of the ACM, where I regularly serve on the program committee and/or organize workshops for the major international conferences held by those organizations for evolutionary computation and computational intelligence. I also periodically serve as a reviewer for several journals with international scope. I have also received entrepreneurial recognition in Atlantic Canada for co-founding a company that produced equities trading software, including admission to the Order of Wallace McCain.

TECHNICAL SKILLS

- Languages: Java, C/C++/C#, Matlab and R, Fortran, Python
 - Research areas: Machine Learning, Evolutionary Computation (including Genetic Algorithms and Genetic Programming), Neural Networks, Bayesian Nets, Fuzzy Logic, Natural Language Processing, Planning Systems
 - Databases: Microsoft SQL Server, PostgreSQL, Graph-based databases
 - Technologies: Concurrent programming, Parallel and distributed computing, Unix, Windows, Web services
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EXPERIENCE

Software Developer

June 2014 to present

Analytics Team, Verafin, Inc.

- Part of a team that creates behavior-based analytics and data mining for detection of fraud and money laundering in software used by over 1000 banks and credit unions in the USA and Canada.
- Designed algorithms using machine learning techniques such as evolutionary computation, fuzzy logic, Bayesian networks, and natural language processing.

Adjunct Assistant Professor

July 2012 to present

Faculty of Computer Science, Dalhousie University

- Supervising graduate student research, evaluation of theses, co-author of several papers
- Managing work of Ph.D. candidate receiving scholarship support from Afinin Labs, Inc. (see below).

CEO (2011-2014), CTO (2009-2011), Director (2009-2015)

Feb. 2009 to June 2015

Afinin Labs, Inc.

- Developed software for equities traders that was used by proprietary traders at National Bank Financial in Canada.
- Co-founder. Served as CTO, CEO, and then as Director; oversaw aspects of the sale of company in 2015.

Postdoctoral Fellowship (x 2)

Mar. 2007 to May 2012

Memorial University of Newfoundland

- Research included machine learning, parallel computing, analysis of large data sets, and information visualization.
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PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

Senior Member (IEEE), Professional Member (ACM), Conference Program Committees: 29, Journal Reviewer: 8

PUBLICATIONS

Book chapters: 3, Journal papers: 5, Reviews: 1, Full text conference paper: 26, Abstracts: 3, Theses: 2

EDUCATION

University of New Brunswick

2012

- Entrepreneurial Leaders Program

Dalhousie University

2007, 2002, 2000

- PhD (Computer Science), Master of Computer Science, BA (First Class Honors, Philosophy)