

LEI (RAY) GUANG, MBA, CFA, MSc

SKILLS

10-year mixed experience in software development, system architecture and design, business analysis and data analytics. Industry expertise in institutional trading, financial analysis/accounting and information security.
 Machine Learning: Scikit Learn, Tensorflow/Keras, Pytorch, Time Series Analysis, CNN/RNN/GAN
 Programming: C++, Python, Javascript (Node.js), NoSQL, SQL, ETL (Informatica)
 Systems: Linux/Unix, Windows, Cloud (Google Cloud/AWS), Microservice(Kubernetes/Docker/Jenkins), Git

EDUCATION AND CERTIFICATES

CFA (Chartered Financial Analyst) Charter Holder since 2016	
MBA in Investment Management , Goodman Institute (scholarship 50% tuition waive), Concordia University	2010 - 2013
Master of Electrical Engineering , Concordia University (major Information Security and Statistics)	2003 - 2005
PhD Candidate, Computer Science , University of Southern California (major secure mobile apps framework)	2009 – 2009
Bloomberg Equity/FX Certificates / Microsoft Certified Engineer (MCSE) / Cisco Certified Network Professional (CCNP)	
Machine Learning Courses with Coursera/Udemy/Deepmind	2017 - Present

EMPLOYMENT EXPERIENCE

SENIOR DATA SCIENTIST , BRAINFINANCE, Montreal	2019 – Present
<ul style="list-style-type: none"> Build from scratch a fast and easy to config framework to automate data preprocessing and model selection/hyperparameter search/validation process using pipelines and message passing (backend sklearn and tensorflow) Implement state of art algorithms for preprocessing/modeler framework above, e.g., auto-encoder, entity-embedding, Weight of Evidence, Time Series Models (e.g., DTW) Build serving framework to score with production requirements, e.g., serve with either traditional machine learning models or deep learning models with RESTful API (serve either in Flask or GOLang middle layer) Build data warehouse to source data from various providers in different data formats (structured and unstructured) Develop fraud detection models and optimal lending amount models using framework above. 	
ASSOCIATE VICE PRESIDENT , BNP PARIBAS, Montreal	
<i>ALM Trading Desk Project Developer</i>	
<ul style="list-style-type: none"> Project management, testing, development and production deployment for Front-office and Back-office system. Work at ALM trading desk, Bond and FX desk to develop and support US real-time trading system and FX/IAM trading operations, including emergent code fix for time-sensitive trading issue and development for real-time trading system, including deal capture, portfolio analytics and PnL calculation and automation of trade processing. Develop new features and automation procedure based on ad-hoc requests from trading desks. Automate and monitor all steps of software release cycles, such as regression/integration tests, development/production environment setup, infrastructure management and full-stack troubleshooting. 	
SENIOR ASSOCIATE , MORGAN STANLEY, Montreal	
<i>Developer/Data Analyst, Investment Finance</i>	
<ul style="list-style-type: none"> Develop accounting cost attribution/management reporting ETL and reportings via SQL/MS Cube. Automate accounting month-end process with in-house scheduling and workflow libraries. Develop business intelligence cubes, dashboard related to senior management reporting and regulatory reports. 	
SENIOR SYSTEM ADMINISTRATOR , SITA, MONTREAL	2009-2010
<ul style="list-style-type: none"> Linux and Windows server cluster administration and system architect 	
SENIOR INFORMATION SECURITY ANALYST/SYSTEM ADMINISTRATOR , BABYTEL/VOICE DATA SYSTEMS, MONTREAL	2006 - 2009
<ul style="list-style-type: none"> Develop VoIP monitoring and alert system for data quality, security and usage (Perl, PHP/SQL). Security hardening and infrastructure design of VoIP network and server infrastructure 	
RESEARCH ASSISTANT , UNIVERSITY OF SOUTHERN CALIFORNIA	2009 - 2010
<ul style="list-style-type: none"> Research and develop secure and power efficient mobile operating system with C++/JAVA (e.g., memory management, file system, power control and security). 	
RESEARCH ASSISTANT , CONCORDIA UNIVERSITY	2004 - 2006
<ul style="list-style-type: none"> Created 3-D Markov Chain statistical model to detect anomaly behavior in self-organized community network. Designed intrusion detection system <i>DREAM</i> and published on IEEE magazine. 	

PROJECTS

Worked as fundamental equity analyst and quantitative analyst for local hedge fund firms with AUM \$100M. Develop quant models to select stocks based on multi-factors (fundamental and momentum) using step-wise regression model.

PUBLICATION:<http://dblp.uni-trier.de/pers/hd/g/Guang:Lei>[home](#) | [browse](#) | [search](#) | [about](#)

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**Lei Guang**

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[–] 2000 – 2009

2008

- [j4] Lei Guang, Chadi M. Assi, Abderrahim Benslimane: **Enhancing IEEE 802.11 Random Backoff in Selfish Environments**. IEEE T. Vehicular Technology 57(3): 1806-1822 (2008)
- [j3] Lei Guang, Chadi Assi, Abderrahim Benslimane: **MAC layer misbehavior in wireless networks: challenges and solutions**. IEEE Wireless Commun. 15(4): 6-14 (2008)

2007

- [j2] Lei Guang, Chadi Assi, Yinghua Ye: **DREAM: A system for detection and reaction against MAC layer misbehavior in ad hoc networks**. Computer Communications 30(8): 1841-1853 (2007)
- [j1] Lei Guang, Chadi Assi: **Vulnerability assessment of ad hoc networks to MAC layer misbehavior**. Wireless Communications and Mobile Computing 7(6): 703-715 (2007)
- [c9] Abderrezak Rachedi, Abderrahim Benslimane, Lei Guang, Chadi Assi: **A Confident Community to Secure Mobile Ad Hoc Networks**. ICC 2007: 1254-1259
- [c8] Khoder Shamy, Chadi Assi, Lei Guang: **A Study on the Binary Exponential Backoff in Noisy and Heterogeneous Environment**. MSN 2007: 397-408

2006

- [c7] Lei Guang, Chadi Assi: **Cross-Layer Cooperation to Handle MAC Misbehavior in Ad Hoc Networks**. CCECE 2006: 219-222
- [c6] Lei Guang, Chadi Assi: **A Self-Adaptive Detection System for MAC Misbehavior in Ad Hoc Networks**. ICC 2006: 3682-3687
- [c5] Lei Guang, Chadi Assi, Abderrahim Benslimane: **Interlayer Attacks in Mobile Ad Hoc Networks**. MSN 2006: 436-448
- [c4] Lei Guang, Chadi Assi, Abderrahim Benslimane: **Modeling and analysis of predictable random backoff in selfish environments**. MSWiM 2006: 86-90
- [c3] Lei Guang, Chadi Assi: **Mitigating Smart Selfish MAC Layer Misbehavior in Ad Hoc Networks**. WiMob 2006: 116-123

2005

- [c2] Lei Guang, Chadi Assi: **On the resiliency of mobile ad hoc networks to MAC layer misbehavior**. PE-WASUN 2005: 160-167
- [c1] Lei Guang, Chadi Assi: **Vulnerabilities of ad hoc network routing protocols to MAC misbehavior**. WiMob (3) 2005: 146-153

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