

Curriculum Vitae – Extended Version

Dr. Peter J. Gallant

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Education

Ph.D., Electrical and Computer Engineering, Queen's University, 2001

Thesis: A Hybrid Evolutionary Algorithm to Train Neural Networks as Time-Series Predictors

M.Sc. (Engineering), Electrical and Computer Engineering, Queen's University, 1993

Thesis: An Approach to Myoelectric Control Using a Self-Organizing Neural Network for Feature Extraction

B.Sc. (Honours), Electrical and Computer Engineering, Queen's University, 1991

Employment and Professional Experience

Assistant Professor (Continuing Adjunct)

Smith School of Business at Queen's University (2018-present)

Adjunct Faculty Member / Instructor

Smith School of Business at Queen's University (2010-2018)

Queen's Faculty of Engineering and Applied Science (1995-2003, 2014-15)

- Received Continuing Adjunct Status in July, 2018.
- Presently teach several of the core entrepreneurship and venture Finance courses at the undergraduate Commerce program (COMM305, COMM301), full-time MBA (MBAS871), and Master of Management, Innovation and Entrepreneurship (MMIE821).
- Delivered several Executive Education courses to entrepreneurs from Tianjin, China (Toronto site) and the Saudi Industrial Development Fund (Riyadh, Saudi Arabia).
- Teaching evaluations consistently above departmental mean for all courses taught.
- Supervised several students in independent study (COMM501 & COMM502).

- Developed and taught a new course (COMM301) on financing new ventures intended for engineering students in the innovation stream.
- Developed and taught 2 new first-year courses in the Faculty of Applied Science in the mid 1990's (APSC 190 and 191). APSC 190 was awarded the Wighton Fellowship in recognition of innovation in teaching.
- Developed and led an innovative 4th year capstone project option for students in Electrical and Computer Engineering, Computer Science, Mathematics and Engineering, and Engineering Physics called the Competitive Autonomous Vehicle (CAVE) project based on autonomous, game playing robots.

President

Realtime Venture Advisors, Inc. (2018-present)

- Provide advisory services to early-stage companies in technology-oriented vertical markets, primarily focused on sensing, testing method development, regulatory validation processes in water, environmental monitoring, and specialized industrial applications.
- Provide investment selection, analysis and advisory services to a private equity firm listed on the London Stock Exchange (2020-2021).
- Active partnership with a professor at a Canadian university to commercialize a novel sensor to detect and optimize residual polyacrylamides to reduce chemical consumption in municipal and industrial wastewater processes using UV-Visible Spectrophotometry.
- Advisor to Canadian venture fund for one of the largest investments ever made in a water testing company (LuminUltra Technologies).
- Advisor to several early-stage companies.

President and CEO (2015 - 2018)

Water Technology Acceleration Project (WaterTAP)

- Responsible for leading the Province of Ontario's economic development organization focused on the drinking water, wastewater and stormwater sectors – established by provincial legislation (Water Opportunities Act, 2010).
- Responsible for scale-up of the organization from 5 to over 15 staff and a budget of \$2.35M (2017).
- Accountable for generating business and economic outcomes (revenue growth, increased employment, international trade and exports) to both an active and engaged Board of Directors and the Minister of Research, Innovation and Science.
- Frequent speaker at industry events and government policy consultations at the provincial and federal level.

**Founding President and CEO (2003 - 2007) and
Vice-President, Business Development and Regulatory Affairs (2007-2015)
Pathogen Detection Systems, Inc. / ENDETEC Global Sensor Platform
Veolia Water Solutions & Technologies**

- Co-founded Pathogen Detection Systems (PDS) to commercialize novel technology developed at Queen's to automate the process of detecting microbiological contamination of public drinking water supplies.
- As President and CEO, responsible for raising over \$2 million of angel and institutional venture capital in several rounds. During this time, PDS also secured commitments of \$2.5 million from the Ontario Ministry of Research and Innovation (Innovation Demonstration Fund) and \$2.5 million from Sustainable Development Technology Canada (SDTC).
- Responsible for development of the company's intellectual property strategy in conjunction with Parteq Innovations, resulting in numerous issued patents worldwide, and exclusive worldwide licensing of technology from Parteq to PDS.
- PDS acquired by Veolia Water Solutions and Technologies (VWS) in January, 2009 to form the key platform company (ENDETEC) for Veolia's smart water technology initiatives.
- As VP Business Development / Regulatory Affairs – responsible for development and execution of global regulatory approvals for ENDETEC technologies, including interacting with federal and provincial agencies in the US, Canada and Europe on regulatory policy issues.
- Extensive work leading or working on global teams of professionals from diverse cultures and backgrounds – managed projects in France, Switzerland, the UK, the US and Canada.
- Recruited and led team of world expert microbiologists to reformulate the company's microbiological test reagents to enable US EPA approval.
- Lead US EPA approval project – resulted in the first-ever approval of an automated microbiological testing system for drinking water testing under the Safe Drinking Water Act (40 CFR 141) in the USA.
- Extensive advisory work and direct advisory work with numerous startups with the Veolia Innovation Accelerator program.
- Winner – VIBE Challenge (company-wide innovation challenge in a 250,000 employee organization) in 2015 as part of team that developed an innovative real-time sensor for polyacrylamide dosing in wastewater – reducing the largest operating expense of a wastewater treatment process.
- Author or co-author on numerous papers and reports on technical and regulatory policy issues and on the results of regulatory approval / performance studies of water quality sensor technologies.

Board Vice-Chair and Chair, Audit Committee (2011-2015)
Water Technology Acceleration Project (WaterTAP)

- Served as a volunteer advisor to the Ontario Government and Ministry of Research and Innovation on the Water Opportunities Act (passed in 2010) – an act designed to stimulate innovation and economic development in Ontario’s water and wastewater sector.
- Subsequently appointed by the Minister of Research and Innovation to the inaugural Board of Directors of the Water Technologies Acceleration Project (WaterTAP) - a not-for-profit corporation created under the terms of the Water Opportunities Act (2011-2015).
- Served as Chair, Audit Committee (2011-2015) and Vice-Chair of the Board of WaterTAP (2012-2015).
- Left the Board in 2015 in order to be considered (successfully) for the position of President and CEO.

Member, Management Committee (2008-2014)
Flexible Medical Systems LLC

- Member of the Management Committee (equivalent to Board of Directors) for a US-based Limited Liability Company that is developing innovative biotechnology for the non-invasive sensing of blood glucose.
- Technology licensed from Georgetown University, Washington DC.
- Supported management team through several rounds of venture financing and grants from the US government, including Walter Reed Army Medical Center.
- Company acquired in 2014.

President and CEO (1997-2003)
ESPONSIVE Communications Corporation

- Launched first business venture while still in Ph.D. program to commercialize technologies developed during my Ph.D. research in neural network-based time-series modeling.
- Developed proprietary financial models for US interest rate futures and currencies traded on the Chicago Board of Trade and Chicago Mercantile Exchange.
- Subsequently developed software system to analyze unstructured text (with Dr. Michael Jenkins, Queen’s) and to improve search results from Google using a “deep search” algorithm to improve the individual relevance of results.

Skills and Experience

1. Entrepreneurship and New Venture Creation

20 years of experience developing early-stage companies and developing innovative products from the laboratory benchtop to the marketplace.

- Served as President and CEO of 2 start-up companies, second company sold to the world's largest environmental services company.
- Led development of new products in both software and biotechnology through market launch to revenue.
- Recruited and led teams of industry leaders on critical projects, engaged and recruited domain experts to Boards of Directors and Advisory Boards and facilitated strategic planning processes.
- Presently teach the core courses in the MBA and undergraduate programs in the Queen's School of Business in the financing and management of new ventures.

2. Intellectual Property and Licensing

Deep appreciation of intellectual property (IP) issues as a co-inventor and experience in developing IP strategy, and negotiating and implementing licensing agreements involving venture-backed companies.

- Extensive experience identifying and evaluating intellectual property for commercialization in diverse market sectors.
- Named co-inventor on several US, Canadian and international patents.
- Working knowledge of patent processes and requirements.
- Experience in development and implementation IP strategy for several start-up companies.
- Experience negotiating and implementing IP licensing agreements.
- Successfully raised capital for technology companies where intellectual property was licensed (and not owned) by the investee company.

3. Innovation

Thought leader in the development of open innovation models and sought-after advisor on accelerating the process of innovation and development/introduction of new products and technologies.

- Assisted in the development of next-generation model of Veolia's Innovation Accelerator (VIA 2.0).
- Winner – VIBE Challenge – company-wide innovation challenge within a 250,000 employee company.
- Frequent participant on Innovation Steering Committees to support Veolia's municipal and industrial lines of business.

Innovation (continued)

- Judge, MIT Clean Energy Prize, Massachusetts Institute of Technology (2013).
- Developed Sharepoint-based Innovation Opportunity Management System and contributed to the development of the Veolia Innovation Accelerator (2.0) model to facilitate interaction between start-up companies and Veolia (2011-present).
- Co-founder of an international committee of the American Water Works Association to identify ways to accelerate innovation in the drinking water industry (2013).
- Keynote speaker, Queen's Summer Innovation Institute, kick-off event (2013 - present).
- Invited speaker, Queen's Innovation Summit (2013, 2015).
- Keynote speaker, The 54-Hour Start-Up (2013).
- Advisor to the Confluence Innovation Cluster, Cincinnati, OH – mandated to support the development of innovation in the water industry (2012-2018)
- Frequent speaker on corporate innovation and the regulatory implications of innovation in the water sector (2004-present).

4. Venture Finance

Extensive experience and contacts in venture finance and proven ability to develop investible business plans and presentations and to drive due diligence processes through to closing of venture transactions.

- Advisor / due diligence consultant on several venture transactions on behalf of a Canadian venture capital firm (2015 – 2018).
- Invited speaker, McRock Capital Intelligent Infrastructure Summit (2013).
- Veolia representative on the “DC Cleantech Tour” – a unique event co-hosted with the venture law firm Wilson Sonsini to bring entrepreneurs, corporate innovators, regulatory agencies (US EPA) and venture capitalists together (2012).
- Successfully secured commitments of \$2.5 million from the Ontario Ministry of Research and Innovation, leading to a matching commitment of \$2.5 million from Sustainable Development Technology Canada (SDTC).
- Experience raising multiple rounds of convertible debt / equity financing for 2 start-ups as CEO.
- Coordinated first investment of student-run Tricolour Venture Fund (in PDS).
- As adjunct faculty member, coordinated dealflow for the Tricolour Venture fund for 1 academic year as a follow-on to teaching MBAS871.
- Managed the due diligence process leading to acquisition / investor exit for the Veolia acquisition of PDS (2009).
- Teach the core venture finance courses at the undergraduate and MBA level in the internationally-ranked Queen’s School of Business.
- Extensive experience in structuring successful claims for Scientific Research and Experimental Development (SR&ED) tax credits in software and biotechnology.
- Numerous contacts among venture investors in the US and Canada.

5. Government Affairs

Trusted advisor to government for the past two decades in the fields of innovation, economic development and government funding policy for universities.

- As CEO of WaterTAP - frequent interaction with senior administrators and Ministers in the Ontario Ministry of Research, Innovation and Science, Ontario Ministry of the Environment and Climate Change, Ontario Ministry of Economic Development and Trade, Ontario Ministry of International Trade, Global Affairs Canada and Industry, Science and Economic Development Canada.
- Invited participant in the Federal Economic Strategy Tables (supporting development of over \$2 billion in cleantech programs) – 2017 - 2018.
- Advisor to the Ontario Government on the development of the Water Opportunities Act (passed by the Ontario Legislature in 2010).
- Appointed by the Minister of Research and Innovation (via the Public Appointments Secretariat process) to the Board of Directors of WaterTAP (2012 – 2015).
- Appointed by the Premier of Ontario to the Ontario Council on University Affairs (1993) requiring testimony and confirmation hearing at the Standing Committee on Government Appointments of the Ontario Legislature.

6. Teaching and Academic Experience

Effective and innovative teacher with a diverse set of teaching interests spanning business/entrepreneurship, management science, and engineering/technology. Education and academic credentials that bring credibility to dealings with faculty members and university administrators.

- Effective and engaging presenter and written communicator.
- Teach MBA-level courses on venture finance and managing early-stage ventures.
- Currently teach the core entrepreneurship course for the Queen's Commerce undergraduate program, where students develop and present venture pitches and complete business plans.
- Previously developed and taught several innovative, award-winning courses in the Faculty of Applied Science at the 1st year and 4th year level.
- Teaching evaluations consistently above departmental mean.
- Several publications in peer-reviewed journals, including two book chapters and numerous conference presentations and papers.

7. University Governance Experience

Extensive track record of leadership and participation in university governance and a deep understanding of the fiscal challenges faced by universities.

- Rector, Queen's University (1993-1995).
- Member, Board of Trustees, Queen's University (1993-1995).
- Member, Queen's University Council (1999-2007).

University Governance Experience (continued)

- Member (1990-1991) and Chair (1991-1993), Senate Budget Review Committee, Queen's University – first student to Chair this committee.
- Chair, Ad-Hoc Senate Committee to Review the Grievance Procedures (1992-1993).
- Appointed Member, Principal's Advisory Task Force on Resource Issues (1993).
- Student Representative, Queen's University Senate (1989-1991).
- Member, University Grievance Board (1989-1991) and various Senate Committees.

8. Community Involvement

Energetic involvement and contribution to the broader community on a local, national and international basis.

- Co-produced and appeared in 2 episodes of the Rebel Entrepreneur podcast (in collaboration with the Rebel Business School, UK) on topics of entrepreneurship and productivity, including interview with David Allen, author of Getting Things Done (2021).
- Presenter, "Risks of Financial Independence and Early Retirement", Camp Mustache Toronto (2019) plus appearance as guest on several related podcasts (2019-present).
- Volunteer, Reticle Ventures Brockville Experiential Learning facility (2016 – 2018).
- Frequent speaker at Queen's Summer Innovation Institute bootcamps and start-up venture conferences (2014 – present).
- Panelist, MBA Communication Skills Seminar (2013).
- Mentor and ad-hoc advisor to numerous start-up entrepreneurs in Canada and the US (2003-present).

- Invited Panelist, 1st Annual Getting Things Done Summit, San Francisco, The David Allen Company (2009).
- Member, Business Advisory Board, The David Allen Company (2006 - 2012) – developers of the Getting Things Done methodology for personal productivity.
- Invited speaker, numerous community-based events (1999-present).
- Winner, Young Entrepreneur of the Year, Kingston Chamber of Commerce, (2002).
- Invited Speaker, First Canadian Conference on Ethical Leadership.

Refereed Publications and Conference Presentations

Numerous peer-reviewed papers, two book chapters, and conference papers and presentations. A complete list of publications is available upon request.

References

A list of references is available upon request.