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**Profile:** Shawn Murphy is a visionary, innovative and goal-surpassing FOUNDER, CEO and CTO with 30+ years of successfully spearheading the execution of organization visions through bold and solutions-focused business strategies.



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- **Software architect**, knowledge engineer, software **developer**, dev team leader, and trainer with vast experience designing and building large data-driven, scientific, academic, collaborative, e-commerce, visualization and publishing systems
  - Highly proficient in diverse programming languages, knowledge representation technologies, frameworks, visualization tools, RDBMSes, ORMs, APIs, standards, methodologies and architectural styles
  - Motivated by the observation that exponentiating technologies (A.I., computing, robotics, biosci) are dominating flatlining wisdom he has led research into solving the human-values alignment problem as a foundation for addressing AI alignment, democratic fragility, irreproducible science, fake news and other conundra
  - A visionary leader striving to build out a global-scale knowledge management ecosystem wherein software, knowledge and presentation co-evolve under the pressure of human values and expertise – to technologically host and ground our collective cognition, so we can meet the challenges of our time

**Professional Specialties:** Knowledge Representation & Graphs, Semantic Web, Distributed Systems, Collaborative Filtering, Agile, RDBMS, EDI, ORM, Functional, OOP, Cognitive Computing, Dynamic Graphics, DevOps, Pattern Languages, Data-Context-Interaction, Browser Extensions, Identity Management, NoSQL, DevOps, FOSS, Computer Supported Collaborative Work

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<b>Experience</b>	2015 to present	Founder & CEO	Nooron Collaboratory Inc/UC
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Nooron is a long-term R&D project in pursuit of exponentiating collective human cognition. It consists of a novel semantic database backend and flexible frontend which includes knowledge management, data visualization and collective intelligence application development tools. Shawn leads this six person company and also serves as software architect and lead programmer. Nooron Inc is funded by angel investment; management services to consumer products vendors; and semantic software development services to Universities including Guelph, Alberta, Cambridge and Exeter.

2013 to 2014 Fullstack Software Engineer [Connectifier](#)

Used Java, Scala, AngularJS, the Play Framework, MongoDB, Elastic Search and Selenium as part of a startup team to build a category leading recruiting platform. Connectifier used big data and machine learning techniques to crawl the web and social networks for CV and contact information to empower recruiters specialized in hiring software engineering talent. Shawn was their sixth engineer following the four initial Google software engineers. Shawn left to found Nooron Collaboratory. Connectifier was later acquired by LinkedIn.

2013 to 2014 Architect & Programmer [The Orlando Project](#)

Coding and architecting an animated highly interactive semantic visualization research platform using D3, Canvas, RDF and NodeJS for a university consortium working in

the digital humanities. It features multi-modal interactivity ( using direct manipulation; bulk specification and a novel semantic graph layout specification language ) to support visual exploration of a large text corpus.

2011 to 2014                                      Founder, CTO, Architect                                      [Semandra, Inc.](#)  
Semandra provided full-service front-to-backend website development specializing in graphics-intensive designs with multimedia integration, database-driven backends with complex programming requirements, and content-rich user-maintainable CMS sites.

- Ponderate — an agile, collective knowledge curation and evaluation tool
- TOBFleet — a RESTful web service which simplifies vehicle fleet integrations
- Theamatic — a web application for repertory theatre and film festival management.
- CReturns — a graphical scheduling system, e-commerce solution and Salesforce integration for this home energy auditing and retrofitting service

2002 to 2011                                      Principal                                      [smurp.com](#)  
Smurp.com provided contract programming and consulting services with a focus on database-backed web sites and complex data processing operations.

- PyOKBC — A Python implementation of the *Open KnowledgeBase Connectivity* system of knowledge representation and abstraction. It was designed to provide a single consistent interface to diverse structured information sources, to include ontologies, relational databases, xml documents, and topic maps.
- PyRETS — An implementation of the *Real Estate Transaction System* for keeping the Vancouver Real Estate Board synchronized with MLS.ca
- CatPub — A database publishing technology consisting of a Postscript templating system over a relational database back-end. Suitable for automatically preparing complex, highly customized, Postscript and PDF publications such as directories and catalogs, it is closed source software created under contract for a firm providing publishing services to the real estate industry. It is producing on the order of 10 thousand unique catalog pages every day containing constantly changing data for the largest real estate boards in Western Canada.
- TKQ2.0 — A Django e-store system vending e-books for hundreds of educational publishers, through a dozen store-fronts, with sophisticated features such as promotions, steganographic watermarking in PDF, bundling, coupons and more.
- TKQW — A Medusa-based “digital drop-shipping“ system enabling digital goods sale and delivery by untrusted 3rd parties.
- ModelViz — Added dynamic SVG-based touring facilities to this Django model entity-relationship visualizer.
- Alberta Lodging Association — A Django-based lodgings database backing a web site, a printed directory and an associated advertising sales and layout system.

1995 to 2003                                      Founder, Chair, VP R&D                                      [Emergence by Design](#)  
Shawn founded Emergence by Design along with four colleagues to pursue the development of *The Idea Engine*. To fund the ongoing development of TIE, EbD became a dot-com factory, providing consulting, development, hosting and ecommerce services to new dot-com ventures. Shawn was VP of R&D, lead developer and chief architect of this 15-person organization, until selling his interest in 2003.

- TheIdeaEngine — architect and lead developer of this R&D project developing a distributed knowledge representation system using Java (and JDBC), Perl (and DBI), Scheme, and various SQL backends. The effort included the implementation of the OKBC (Open Knowledge Base Connectivity) specification in Java and Perl, the authoring of a multithreaded knowledge server and the creation of many perl CGIs, Java Applets and Applications.
- [GetCited.org](#) — chief architect and lead developer on this massive, highly abstracted academic bibliographic portal system featuring:
  - reference and citation cross-references

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|---|-----------------------------|------------------|
| 1989 to 1995  | Systems Analyst I, II & III | Gov't of Alberta |
| Shawn was responsible for analysis, design, programming, training and support of LABBASE: a multi-disciplinary LIMS (Laboratory Information Management System) coded in Paradox and WordBasic. It co-operated with a legacy AS/400 application written in RPG/400 and CL, which he also maintained. During this project he managed three other programmers, the AS/400 administrator and a tech support person. |                             |                  |
| 1990 to 1995  | Principal                   | Sapient Systems  |
| Sapient Systems specialized in the creation of desktop database apps.   |                             |                  |

- Wrote *FastEDI* in PAL (the Paradox Application Language) to provide a subset of the ANSI X.12 (V3.020) Electronic Data Interchange system for an oilfield supply company interested in easing the ordering process for the many regional offices of their large clients in the oil patch. *FastEDI v1.0* implemented the transaction sets for Price/Sales Catalog (832) and Purchase Order (850) thus enabling the electronic distribution of the latest pricelist and placement of orders.
- Created a *Disability Inventory & Assessment System* for an Educational Consultant to use as a proof of concept of her doctoral work for possible productization.
- Created a *Property Management System* for a Realty Firm to track the features, locations, prices and owners of available commercial real estate to facilitate showing to clients
- Attended “NeXT Developer Camp“ and wrote *Elements.app*

1990 to 1992

Founder & Director

TechnoWatch Society

Founded and managed this non-profit think tank focused on the strategic impacts of emerging technologies such as nanotech, biotech, AI and robotics. Put on presentations, guided staff, and conducted a scientific literature review.

#### Interests:

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|---------------|-------------|-----------------|-------------------|
| • A-Life      | • Agorics   | • Autopoesis    | • Design Patterns |
| • Emergence   | • Evolution | • Planetworking | • Quantified Self |
| • Game Theory | • GroupWare | • ISO-9000      | • Markets         |
| • Nanotech    | • Noosphere | • Singularity   | • Wearables       |