MARK CLANCY, B.ENG, MBA

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SUMMARY

Mark is a senior data engineer with over 25 years of experience. His primary expertise is in the field of analytics / data warehousing / business intelligence with a specific focus on the Microsoft Fabric platform. He began his consulting career with Accenture and then founded IGENO in 1999. Mark has consulted in Canada, the United States, Australia and UAE and across a variety of industries including healthcare, e-commerce, real estate, retail, telecom, financial services, tourism and hospitality. He holds a Bachelor of Engineering (electrical) from the University of Victoria and an MBA from the University of Western Ontario (Ivey). He also served as an Adjunct Professor at the University of British Columbia (UBC) where he taught a course in data analytics.

EXPERTISE

- Data Engineering
- Analytics / Business Intelligence
- Microsoft Fabric
- MongoDB / NoSQL

- Data modeling / visualization
- Software Engineering / development / serverless
- Relational databases (SQL Server, Oracle, MySQL, DB2)
- Business analysis (forecasting, modeling)

CONSULTING EXPERIENCE

- Provincial Health Services Authority (PHSA)
- AT&T Wireless (USA)
- Coast Hotels & Resorts
- Best Buy / Future Shop

- BC Ministry of Health
- Vancouver Convention Centre
- Gas & Fuel Corporation of Victoria (Australia)
- realtor.com

WORK HISTORY

IGENO Consulting	2000..present
Accenture (Andersen Consulting)	1990s
Telus	1990s
MacDonald Dettwiler (MDA)	1990s

SPEAKING

PHSA Data Analytics Summit	Fall 2023
MongoDB World, New York City	Spring 2019
Analytics with MongoDB: The Data Warehouse You Didn't Know You Had	

TEACHING / COMMUNITY

University of British Columbia (UBC), Adjunct Professor	2020 - 2023
Course: Data Analytics, *Master of Food and Resource Economics*	
Vancouver MongoDB Uses Group (VanMUG), Co-Organizer	2017 - 2023

TECHNOLOGY SKILLS

Microsoft Fabric

• Lakehouse, Notebooks	90%
• PowerBI, Pipelines	90%
MongoDB	100%
SQL (SQL Server, Oracle, MySQL)	100%
Python, ML	90%
Node, javascript, Typescript	90%
React, HTML, CSS	80%

Microsoft Azure

• Azure functions, AzureSQL	90%
• ADO, Event Grid	90%
Amazon (AWS)	
• Lambda, EC2, S3, SQS	80%
Linux, Unix, Docker	
Jest, Selenium	70%
Tableau	70%

OTHER SKILLS

Project Management	100%	Agile Development	90%
Business Analysis	100%	Process Design	90%
Testing	100%		

EDUCATION

Bachelor of Engineering (Electrical)
University of Victoria, Victoria, BC

MBA
University of Western Ontario (Ivey), London, ON
(94% percentile GMAT score)

MongoDB University
- 101J Developer
- 102   Database Administrator

Continuing Education
- Microsoft Fabric 2024 – Ignite Challenge, 9 badges
- MongoDB World 2019 – New York
- MongoDB World 2018 – New York
- MongoDB World 2017 – Chicago

CONSULTING EXPERIENCE (FULL)

- ☐ Provincial Health Services Authority (PHSA)
- ☐ Vancouver Convention Centre
- ☐ Hoopstir
- ☐ Brocolli Pizza & Pasta
- ☐ Dream In Color / PRB
- ☐ Visit Pittsburgh, Meet Minneapolis
- ☐ Tourism Vancouver
- ☐ Best Buy Canada
- ☐ Future Shop
- ☐ Sea-Land
- ☐ BC Gas Corporation
- ☐ RainCity Housing
- ☐ Hgregoire
- ☐ CMI Concierge
- ☐ Realtor.com
- ☐ Crystal Commerce
- ☐ BC Ministry of Health
- ☐ Coast Hotels & Resorts
- ☐ Canaccord Capital
- ☐ AT&T Wireless
- ☐ Gas & Fuel Corporation of Victoria

Provincial Health Services Authority (Vancouver, Canada) **2020 - current**

- Designed and led the effort to implement a multi-tenant analytics/BI capability for the PRISM system. Technologies used included Microsoft Fabric, Lakehouse, Data Factory, Python Notebooks, Apache Spark, PowerQuery and PowerBI. (Record Counts > 100M, Terabyte-scale storage volumes).

- Worked as a full stack developer on PRISM, a clinical registry system designed to support cardiac, trauma and stroke procedures, organ donation and a variety of other programs. Specific technologies included Typescript, GraphQL, React and Azure SQL. (Users > 1000, Daily Transactions > 100K)

RainCity Housing (Vancouver, Canada) **2019 - 2020**

- Designed and developed a data warehouse based on AWS, MongoDB and PowerBI. Created a fully automated serverless integration interface to populate the warehouse from a cloud-based payroll system (Dayforce).

Vancouver Convention Centre (Vancouver, Canada) **2018 - 2020**

- Designed and developed various complex data interfaces between multiple enterprise systems including payroll (Dayforce), event management (Ungerboeck) and web.

HGregoire (Montreal, Canada) **2019 - 2020**

- Designed and developed a data warehouse based on AWS, MongoDB and PowerBI for a large automotive group. Created a fully automated serverless integration interface to populate the warehouse from various internal and external systems   appraisal, dealer management (DMS) and inventory.

Hoopstir (Vancouver, Canada) **2018 - 2020**

- Designed and developed a multi-tenant basketball academy management system which includes registration, team management, analytics and notifications. Stack used was React, node.js (AWS serverless lambdas) and MongoDB Atlas. (live site: www.hoopstir.com)

Matterz (New York City, United States) **2018 - 2020**

- Designed a MongoDB data model for multi-tenant system for law offices. Also set-up and configured MongoDB Atlas Full-Text Search integrated with AWS Lambda functions and client search.

CMI Concierge (Vancouver, Canada) **2018 - 2020**

- Designed and developed iStar, a multi-tenant concierge management system. System included native app for NFC scanning, photos, inspection tracking, etc. and a back-end administration console for the management of inspections, users and analytics. Stack used was React Native, node.js (AWS serverless lambdas) and MongoDB Atlas.

Brocolli Pizza & Pasta (Dubai, UAE) **2018 - 2019**

- Acted as MongoDB expert resource and software developer. Diagnosed performance issues and identified primary issue as a fully normalized relational model that had been implemented in MongoDB. Worked to redesign and de-normalize data model, convert data and conduct performance testing. Dramatic improvement in performance was realized.

Realtor.com (Vancouver, Canada) **2018**

- Senior developer on very large-scale microservice application for realtors. Extensive experience with node.js, AWS Lambda, serverless framework, API Gateway, SQS, SNS, DynamoDB, Jest and React. Performed a variety of tasks including new feature development, bug fixes and developed new approaches for component testing using Jest.

Dream In Color / Population Reference Bureau (Washington DC, USA)   **2018**

- Designed and developed an analytics app for visualizing non-communicable disease research data. Stack used was React, node.js (AWS serverless lambdas) and MongoDB Atlas. (live site: app.youthandncds.org)

Crystal Commerce (Seattle, USA)   **2016 - 2017**

- Developed a new NoSQL data model to support migration from MySQL to MongoDB database. This required a deep understanding of their existing business model and processes. Also developed queries, indexing strategy and performed ongoing performance tuning. Database now handles over 3k transactions per second and has collections approaching 1b documents. Provided in-person MongoDB training to their development team.

Various (Visit Pittsburgh, Meet Minneapolis, Exp. Grand Rapids, Ann Arbor CVB, etc.)   **2010 - 2017**

- Architected and co-developed a multi-tenant analytics and dashboard platform using React, node.js, Amazon Lambda, MongoDB and Ruby on Rails. This involved extensive mapping from a variety of relational databases and web services into a common meta layer in MongoDB. This is a live, operational system that is used by hundreds of users.

Ministry of Health (HealthLink BC)   **2009 - 2012**

- Project managed a $10M integrated directory of British Columbia healthcare services and practitioners. Oversaw work of over 50 resources in addition to multiple third party technology vendors. Extensively involved in project planning, process design using UML, scope & requirements analysis, post-implementation reviews and privacy assessments (FOIPPA compliance). Project completed on-time and on-budget.

Tourism Vancouver   **2008 - 2010**

- Led effort to establish and operate an SAP Business Objects data warehouse. This involved extensive system analysis, process design and integration strategies for a variety of existing platforms including Customer Relationship Management (CRM), Point of Sale (POS) and research data.

Coast Hotels & Resorts   **2006 - 2007**

- Reporting to the CIO, led a project to define a new three year technology roadmap for Coast Hotels & Resorts including architecture, processes and people.

- Reporting to the VP of HR, led a project to map all HR processes and to select and implement a new HRIS system.

Best Buy Canada, Burnaby, BC   **2001 - 2009**

- Reporting to the Vice President, Pilot Stores, project managed the strategic planning and implementation of a pilot store program. This was an ambitious program to completely reinvigorate the Future Shop brand and included store design, store processes, digital signage, store systems, staffing and merchandising.

- Reporting to the Customer Insights Manager, project managed the launch of Best Buy's Reward Zone loyalty program in Canada. This multi-million dollar project involved over 100 internal stakeholders, six external vendors and three distinct channels   store, web and call centre. This highly successful program enrolled over 800,000 customers in the first year.

- Reporting to the Director of Operational Efficiency, played a key role in a major operational efficiency program across all Future Shop stores.

- Provided strategic direction and due diligence on a variety of e-commerce initiatives including bestbuy.ca and potential acquisitions.

- Reporting to the Director of Inventory, led the effort to improve supply chain efficiency in the music receiving process.

- Reporting to the Director of Corporate Operations, project managed a major 10-month initiative to adapt the Standard Operating Platform (SOP) from Best Buy USA to Best Buy Canada.

- Reporting to the Director of Business Development, project managed a major re-engineering effort to improve customer service levels within stores.

Canaccord Capital, Vancouver, BC   2000 - 2001

- Reported directly to the Senior Vice President of E-Commerce, responsible for a vendor selection process for eCRM, content management and campaign management. Responsible for business process design (using UML) and business case preparation for a new IPO online notification service.

- Designed and implemented a prototype data warehouse using star schemas for client segmentation.

Future Shop, Burnaby, BC   1999 - 2000

- Managed all business development activities for www.futureshop.ca, a leading Canadian e-tailer with ~$25M in annual sales. Reported directly to the Executive Vice President of Merchandising and Supply Chain, Responsibility for a variety of new initiatives launched in 2000 including online integration to corporate inventory system, digital photo processing and online DVD/Music sales.

- Managed the configuration and system test effort during the installation of a new supply chain / inventory system (Retek RMS), a $50 million dollar project. Developed models to validate all Retek replenishment methods as well as stock count processes.

- Architected and managed the development of a 5,000 page intranet for Future Shop's Operations Services group to assist in operational troubleshooting and escalation.

AT&T Wireless (formerly McCaw Cellular), Kirkland, WA (Accenture)   1995

- Team leader of regression testing for McCaw Cellular's new object oriented customer acquisition and service system that serves a customer base of over 2 million subscribers.

Sea-Land, Seattle, WA (Accenture)   1995

- Team leader on implementation of mainframe portion of a large client/server shipping system for seven Asian countries. Gained experience with supply chain, logistics and EDI.

Gas & Fuel Corporation of Victoria, Melbourne, Australia (Accenture)   1994

- Team leader on system test effort for a large client/server work management system that supported 700 users and 1.5 million customers.

BC Gas Corporation, Vancouver, BC (Accenture)   1992 - 1994

- Acted in a variety of roles including designer and programmer on a client/server work management system, which supported 300 users and 600,000 customers.

OTHER EXPERIENCE

TELUS / BC TEL, Burnaby, BC   1998 – 1999

Manager - bctel.com

- Managed strategy and development of BC TELECOM's corporate web site   bctel.com. Direct responsibility for over $1 million in capital and expense funds. Responsibilities included strategic planning, e-commerce application development, team management, project planning and outsourcing management. Participant in BC TEL's Career Development Program, a fast-track program for senior managers (scored in top 10% of all participants).

BC TEL Mobility, Burnaby, BC   1995 - 1998

Project Manager, Information Systems

- Managed development of all client/server and Internet projects with direct control of over $1.2 million in capital funds. Responsibilities included team management, project planning, business case preparation, technical architecture and budget management. Helped the department move into new areas of project outsourcing, object-oriented development and the Internet. Received the highest employee rating in the department in 1996.

MacDonald Dettwiler & Associates (MDA), Richmond, BC   1988 - 1991

Software Engineer

- Software development projects related to air traffic control, satellite image processing & CAD/CAM.