VAN NGUYEN   Decision Support Analyst

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Data analyst focused on decision support who builds predictive dashboards and automated SQL and SAS pipelines. Cut reporting cycle time by 85 percent and reduced unplanned slowdowns by 12 percent at PPG. Health Systems Management diploma expected August 2025; CHIM exam window October 27–31, 2025.

QUALIFICATIONS

- **SQL, Power BI, SAS, Python** for KPI automation, forecasting, and queue/bottleneck analysis.
- Healthcare data literacy from LHSC-aligned coursework and projects using **Ontario Health** and **CIHI** sources; created **de-identified** datasets and decision visuals.
- Familiar with privacy-by-design practices: minimum necessary access, role-based permissions on SharePoint/SFTP, audit logging, and de-identification for secondary use.
- **FHIR** familiarity: mapped **ADT/ORU** messages and FHIR resources (**Patient, Encounter, Observation, Procedure)** into analytics tables; validated schemas and field mappings.
- Built repeatable **ETL** ingestion and **data-quality** checks, documented analysis steps and refresh cadence.
- Clear communication: **decision memos**, concise variance commentary, and stakeholder presentations; invited talk on AI-assisted **ICD-10-CA/CCI** coding.

PROJECTS

ICD-10-CA Helper — AI-assisted coding app   London, ON | April 2025 – Present

- Built a secure web-based application to assist medical coders in identifying ICD-10-CA diagnosis and intervention codes, aligned with CIHI guidelines.
- Integrated **Gemini 2.5 Pro** and **ChatGPT-4o** to analyze patient charts and clinical documents, returning relevant codes, descriptions, and flagging **required additional codes.**
- Implemented **real-time PHI checks** and de-identification safeguards prior to AI processing; aligned to **PHIPA-style privacy practices** for prototypes
- Developed a smart comparison API to validate consistency between user-assigned and AI-suggested codes, with alerts for discrepancies and omissions.
- Designed a clean React frontend for copy-paste workflows and AI-driven code lookup, connected via REST APIs served by NestJS backend.
- Deployed with CI/CD pipelines in an Agile environment to ensure maintainability, data security, and iterative improvements.

Tech Stack: Gemini 2.5 Pro | ChatGPT-4o | NestJS | React | Flask (Legacy API) | ICD-10-CA | CIHI | PHI Detection | REST API | CI/CD | Agile

Decision Support — Operating Budget and Resource Allocation   London, ON | June 2025 – July 2025

- Modeled FY operating budgets for three areas (Ambulatory Care, Inpatient, Integrated Support Services) and built a 20 percent reduction scenario with sensitivity tests on volume, overtime, agency, and non-salary lines.
- **Benchmarked London Health Sciences Centre (LHSC)** against Ontario peers (**Hamilton Health Sciences (HHS)** and **University Health Network (UHN))** using **Ontario Health** indicators and **Canadian Institute for Health Information (CIHI)** Your Health System; compared staffing mix (UPP vs MOS) and supplies/drug expense normalized per weighted case, patient day, and visit.
- **Performed normalization** and **forecasting**: calculated run-rates, 12-month rolling averages, and linear trend projections to estimate next-year spend before new reports were published; flagged variances and cost drivers by program.
- Produced comparison tables and charts in Excel with a brief decision memo outlining **data-driven recommendations**, **trade-offs, and risks**; documented step-by-step analysis and the data-cleaning and validation rules used to correct input errors so updates remain repeatable and auditable.

Tech and sources: Excel | Ontario Health Indicator Tool | CIHI Your Health System | LHSC public financial/QIP materials.

Healthcare Integration Platform — HL7 FHIR, Microservices, CI/CD   London, ON | May 2025 – Present

- Designed and implemented a scalable healthcare data exchange platform between LHSC and St. Joseph's Healthcare using **HL7 FHIR protocols** for both senders and receivers.
- Built **microservices and micro frontends** for Emergency and Cardiac departments using React and RESTful FHIR APIs.
- Developed **automated workflows for receiver servers**: created new patients or appended records if existing; triggered manual review via **Power Automate** when data format mismatches occurred.
- **Engineered ETL pipelines** for data integration with Alimentiv's clinical research systems, including **API gateways** and **patient de-identification.**
- Enabled robust database automation: daily backups, transaction log-based recovery, and seamless failover protection.
- Deployed CI/CD pipelines using Jenkins, ensuring agile delivery and maintainability across services.

Tech Stack: HL7 FHIR | SQL Server | Power BI | T-SQL | Power Automate | React | Spring Boot | Healthcare ETL | Data de-identification | Jenkins | CI/CD | Agile

PROFESSIONAL WORK EXPERIENCE

PPG Industries Inc. (TMMC and GM CAMI) – Data Specialist   Woodstock, ON | Jul 2017 – Sep 2022

- o Built a predictive analytics dashboard in **Power BI** using **SAS** and **SQL** to model paint-line downtime and defect spikes from SPC, OEE, and repair codes. Delivered real-time alerts and staffing recommendations that leveled capacity and cut unplanned slowdowns by **12%.**
- o Performed **bottleneck and queue analysis** on cycle times and rework queues; implemented threshold-based rules to reallocate technicians between booths and the repair deck, improving throughput and reducing backlogs during peak demand.
- o Created interactive **Power BI** dashboards to track paint usage and compute **time-to-runout** by color and booth using trailing consumption and lead times; set risk alerts for items projected to run out within a defined window, improving forecast accuracy and contributing to a **12%** reduction in material costs.
- o Developed and automated **SAS** programs and **SQL** queries to monitor production and inventory KPIs, reducing manual data handling and improving reporting speed by **85%**.
- o Collaborated with BAs, SMEs, and agile teams during the **Oracle** to **SAP S/4HANA** transition, providing insights into inventory control and material forecasting workflows.
- o Standardized data-sharing on network drives and **SharePoint** with **role-based access**, versioning, and SOPs/data dictionaries for internal teams and partners, improving discoverability and auditability.

EDUCATION

Fanshawe College — Graduate Certificate, Health Systems Management (HSY2)   London, ON | Expected Aug 2025
Centennial College — Advanced Diploma, Software Engineering Technology   Toronto, ON | Final Term Fall 2025
Western University — Bachelor of Engineering Science (BESc)   London, ON | May 2017

MEMBERSHIP

Canadian Health Information Management Association — Student Member; CHIM exam window Oct 27–31, 2025
Digital Health Canada — Student Member
HL7 International — Student Member

SKILLS AND CERTIFICATIONS

Programming Languages: Python, SAS, C#, JavaScript, TypeScript, SQL, Java, C++, C, HTML5, CSS3, Linux
Databases: SQL Server, Azure SQL Database, MySQL, SQLite, Oracle Database, MongoDB, Cosmos DB
Frameworks & Libraries: ASP.NET (MVC), .NET, MERN Stack, React, Bootstrap, jQuery, Ajax, Flask, Node.js, GraphQL, RESTful APIs, LINQ, Lambda Expressions
Tools & Platforms: Power BI, Tableau (Desktop, Public), Power Automate Desktop and cloud flows, Azure, AWS, Azure DevOps, Git, GitHub, Visual Studio, VS Code, Postman, Jira, Trello, Visio
Certifications: Microsoft Certified: Azure Database Administrator Associate DP-300, Microsoft Azure Fundamentals AZ-900 Certification, Advanced CS50's Web Programming with Python and JavaScript by Harvard University, The Complete JavaScript by Udemy, Lean Six Sigma Yellow Belt Professional
Soft Skills: Creative Problem-Solving, Time Management, Verbal & Written Communication, Presentation Skills, Team Collaboration, Enthusiasm, Commitment, Adaptability