

# VAN NGUYEN

## Full Stack Developer | Cloud & Data Engineer

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Results-driven Software Engineer with 4+ years of engineering experience spanning **cloud-native systems, data platforms, telecom (VoIP/IPTV), and healthcare IT**. Proven ability to design secure, scalable solutions across AWS, Azure, and Google Cloud. Recognized for delivering **production-ready systems**, data-driven decision support, and award-winning architecture. Strong at bridging backend complexity with reliable, user-focused applications.

### CORE SKILLS

- **Cloud & DevOps:** AWS (ECS/Fargate, ECR, RDS, S3, IAM), Azure DevOps (CI/CD, Pipelines), Docker, Google Apigee, Linux
- **Backend:** C# (.NET 8), Node.js (Express), REST APIs, SQL Server, MongoDB
- **Frontend & Mobile:** React, Flutter, TypeScript, Dart
- **Data & Analytics:** SQL, Power BI, SAS, ETL Pipelines, Predictive Modeling
- **Healthcare & Systems:** HL7 FHIR, ICD-10-CA / CCI, VoIP (SIP), HLS Streaming

### FLAGSHIP PROJECTS

#### Rescue Link – Cloud-Native Disaster Response Platform

London, ON | Sep 2025 – Dec 2025

##### *1st Place Capstone Project*

- Architected a scalable microservices platform on **AWS ECS (Fargate)** using containerized services and immutable deployments.
- Implemented **Zero Trust API access** via Google Apigee and IAM least-privilege policies.
- Enabled real-time geospatial visualization and secure media handling using Google Maps API and Amazon S3

**Tech Stack:** AWS | .NET 8 | React | Docker | Apigee

#### ICD-10-CA Helper — AI-assisted coding app

London, ON | Apr 2025 – Aug 2025

- 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**.
- Processed and normalized complex government healthcare datasets to support full ICD-10-CA and CCI hierarchy navigation.
- Presented at **CHIMA HIP Week 2025** and **Canada Health's Emerging Innovators January 2026**.

**Tech Stack:** NestJS | React | AI APIs | ICD-10-CA | CCI | CI/CD

### PROFESSIONAL WORK EXPERIENCE

#### HD Telecom Inc. – Software Engineer Intern (VoIP & Full Stack)

Toronto, ON | Aug 2025 – Jan 2026

- Deployed **FreePBX (Asterisk)** servers on **Google Cloud Compute Engine**, configuring SIP trunks and inbound/outbound routes. Engineered an **automated provisioning API** to dynamically register extensions for new employees and securely manage credential lifecycles, eliminating manual system administration.
- Developed a unified employee application using **Flutter** and **Dart** (Android/Web), integrating a **SIP softphone client** for secure internal dialing and a real-time scheduling module for staff to block off time and manage shift availability.
- Implemented **Text-to-Speech (TTS)** and **Speech-to-Text (STT)** features by integrating external AI APIs, enabling automated voice interactions for appointment booking workflows.
- Developed a **Node.js (Express)** backend to handle call logic and booking validation, designing secure RESTful endpoints that interface between the telephony server and the mobile application.

#### Fansipan Technologies – Software Engineering Intern (Media Systems R&D)

Toronto, ON | Sep 2024 –

December 2024

- **IPTV Data Engineering:** Analyzed and implemented ingestion pipelines for **Xtream Codes** and **XMLTV (EPG)** formats, handling complex metadata structures for Live TV and VOD catalogs.
- **High-Performance Client Architecture:** Architected a **Flutter-based IPTV client** capable of parsing **20,000+ live channels** from Xtream Codes APIs in under 2 seconds using **Hive (NoSQL)** for local caching.
- Validated player compatibility against diverse **third-party IPTV middleware providers**, debugging authentication handshakes (Xtream Codes API) and optimizing stream stability across heterogeneous server configurations.

## PPG Industries Inc. – Data Specialist

### Woodstock, ON | Jul 2017 – Sep 2022

- Built a predictive analytics dashboard in **Power BI** 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%**.
- Developed and automated **SAS** programs and **SQL** queries to monitor production and inventory KPIs, reducing manual data handling and improving reporting speed by **85%**.
- 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.

## EDUCATION

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<b>Advanced Diploma, Software Engineering Technology</b> Centennial College, Toronto	Dec 2025
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<b>Graduate Certificate, Health Systems Management</b> Fanshawe College, London	Aug 2025
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<b>Bachelor of Engineering Science (BESc)</b> Western University, London	May 2017
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## PROFESSIONAL AFFILIATIONS

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Canadian Health Information Management Association (CHIMA) — Student Member  
Digital Health Canada — Student Member  
HL7 International — Student Member