



Vlad Georgescu

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ABOUT ME

IT graduate (2025) with hands-on experience gained at Sonaca, where I built a real-time industrial monitoring application using live MQTT telemetry, JSON processing, and SQL-based validation. Former field technician with 9 years of experience in high-reliability infrastructure environments, bringing operational discipline, adaptability, and strong awareness of service continuity.

WORK EXPERIENCE

SOFTWARE DEVELOPER - INDUSTRIAL IOT MONITORING PROJECT - SONACA - 15/01/2025 - 19/08/2025 - GOSSELIES, BELGIUM

- Designed and built a web application for real-time industrial equipment monitoring at Sonaca, connecting to the Siemens BFC Gateway via MQTT to process and visualise live machine telemetry in an aerospace manufacturing environment.
- Analysed business requirements with maintenance supervisors, IT, and IoT stakeholders to define functional specifications for the monitoring solution.
- Implemented MQTT client connection and subscription logic to continuously receive and process machine data streams with updates every 500 ms.
- Parsed and processed JSON payloads, mapping incoming telemetry into structured application entities for machine, sensor, and alert-related data.
- Designed a real-time data model maintaining the latest known value per sensor, continuously updated on each new message received.
- Implemented threshold-based alert logic comparing live sensor values against configurable Min/Max parameters to detect anomalies and trigger real-time visual alerts.
- Wrote SQL queries to retrieve and validate historical sensor data from AVEVA Historian, ensuring consistency between live telemetry and stored records.
- Developed real-time dashboards enabling drill-down navigation by production area, machine, and individual sensor.
- Implemented role-based access control with Administrator, Supervisor, and Operator permission levels.
- Improved application resilience through MQTT reconnection handling and retention of the latest known sensor values during connection loss.
- Collaborated with IT, maintenance, and IoT stakeholders in an Agile/Scrum-style delivery process within an industrial IT/OT environment aligned with IEC 62443 security considerations.

WATER NETWORK TECHNICIAN - SODRAEP - 19/11/2013 - 03/02/2022 - BRUSSELS, BELGIUM

- Performed preventive and corrective maintenance on public water distribution networks in Brussels and Wallonia for regional utility clients (SWDE and Vivaqua).
- Investigated and resolved incidents on underground and above-ground infrastructure (pipes, valves, meters, pumping stations) to restore service and minimize downtime.
- Conducted inspections, leak detection campaigns and pressure tests according to defined procedures and quality standards.
- Coordinated on-site interventions with engineers, safety inspectors and field operators in high-reliability, safety-critical environments.
- Recorded intervention details, measurements and findings, updating technical logs and internal systems to keep documentation accurate and up to date.
- Ensured compliance with safety regulations, operational procedures and service quality targets during all field activities.

SALES REPRESENTATIVE - MOBEXPERT - 05/06/2009 - 13/04/2013 - BUCHAREST, ROMANIA

- Advised customers on complete home-furnishing solutions that matched room dimensions, budget, and style.
- Managed the full sales cycle: quotations, order processing, delivery scheduling, and installation follow-up.
- Coordinated with logistics and assembly teams to ensure on-time, error-free deliveries.
- Provided post-sale support, resolving issues quickly and nurturing long-term customer relationships.

● EDUCATION AND TRAINING

15/09/2022 – 05/09/2025 Charleroi, Belgium

BACHELOR'S DEGREE IN APPLIED COMPUTER SCIENCE – APPLICATION DEVELOPMENT Université du Travail – Institute of Technical and Commercial Education (I.E.T.C.)

Algorithmics and programming (C)
Object-oriented programming (Python)
Web application development (PHP, JavaScript, HTML, CSS)
Relational databases and SQL
Software analysis and design (UML)
Computer networks and operating systems
Applied statistics and modeling

15/09/2008 – 02/07/2011 Bucharest, Romania

BACHELOR'S DEGREE IN MANAGEMENT (PROGRAM COMPLETED) Spiru Haret University – Faculty of Economics

● LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s): **ENGLISH: C1 (FLUENT) | FRENCH: C1 (FLUENT)**

● SKILLS

Programming & databases

Python · Sql · Postgresql

Data pipeline & messaging

MQTT · JSON · REST APIs · real-time data ingestion · data modeling

Development tools & environment

Git · Linux (Ubuntu) · Agile/Scrum · Azure

Professional development

Currently learning: dbt · Apache Airflow · Apache Spark · Docker