Umar Arshid
Surrey BC, Canada | (604) 618-3514 | umararshid.com | https://github.com/umarsarshid

Professional Summary

Software Engineer with a focus on backend systems and data engineering. Skilled in C#, .NET, and Python, with hands-on experience building cross-platform hardware simulations and real-time data pipelines (Kafka, MongoDB). brings a disciplined approach to debugging and documentation from a background in technical services, seeking to leverage strong analytical skills to build scalable, reliable software solutions.

Professional Experience

Business Process Analyst - CRM Implementation | City Wide Produce | May 2025 - June 2025

- Implemented **HubSpot CRM from scratch**, transforming B2B sales operations end-to-end
- Built **custom pipelines, properties, and automated workflows** to improve lead tracking + visibility
- Designed **email sequences + qualification steps** aligned with sales cadence best practices
- Led **data cleanup + governance**, enforcing consistent data hygiene and property structure
- Delivered **team training + a reusable tutorial library** to drive adoption across Sales/Marketing
- Partnered cross-functionally to align CRM setup with sales process and growth goals

Technical Services Manager | R.A. Malatest & Associates Ltd, Victoria, BC | *November 2022 - January 2024*
- Led rollout of the **Voxco** survey platform; primary contact for implementation + integration
- Provided **technical support/troubleshooting** to research teams to keep projects moving
- Created **training docs and tutorials** to improve onboarding and platform proficiency
- Reported on **KPIs and data trends** to support management decisions
- Worked with cross-functional teams to optimize workflows and improve data collection efficiency

Sales Analyst & Account Manager | City Wide Produce, Surrey, BC *June 2019 - June 2022*
- Promoted from **Bookkeeper → Account Manager/Sales Analyst** based on performance and impact
- Cleaned and consolidated **5 years of QuickBooks sales data** to improve accuracy and reporting
- Rebuilt reporting using **PostgreSQL**, improving access, structure, and efficiency
- Managed HubSpot CRM + sales strategy, contributing to **40% client growth** over two years
- Built **Excel/Tableau dashboards** for forecasting, KPI tracking, and sales insights
- Ran ad-hoc analysis to spot trends and recommend process improvements
- Used **web scraping (BeautifulSoup)** for lead gen, expanding the customer database
- Streamlined inventory/client communication workflows to reduce friction and improve service

Personal Projects

Secure Evidence Vault (Offline-First PWA) — TypeScript | Vite/React | IndexedDB (Dexie) | libsodium/WebCrypto | (https://github.com/umarsarshid/EVault / https://evault.umararshid.com/)

- **Offline-first architecture:** Built an installable PWA that captures photos/video/audio + testimony and works reliably under poor/no connectivity.
- **Local encryption:** Implemented passphrase-derived keys + authenticated encryption for encrypted-at-rest storage in IndexedDB with decrypt-on-demand previews.
- **Chain-of-custody:** Created tamper-evident custody logs using hash-chained events and Ed25519 signatures for basic verification integrity.
- **Metadata discipline:** Added structured "what/when/where" prompts with optional location capture to standardize documentation quality.
- **Redaction + exports:** Shipped manual image blur/pixelate redaction and one-click ZIP exports including media, JSON/CSV manifests, custody logs, and an offline verifier page.
- **AI-augmented delivery:** Used AI as a co-pilot for atomic-commit planning, test scaffolding, and schema/threat-model validation to accelerate development.

Workspace Billing Control Plane — Go, React/TypeScript, Postgres, NATS JetStream, OpenTelemetry
https://github.com/umarsarshid/Workspace-Billing

- Built an end-to-end metering → billing → invoicing system with idempotent ingest, append-only ledger, hourly/daily rollups, and reconciliation/backfill to prevent double-billing.
- Implemented deterministic pricing + immutable invoices with explain snapshots and content hashes; added cost-to-date APIs and SSE-driven live billing UI.
- Instrumented HTTP/DB/event flows with OpenTelemetry and Jaeger for traceability across ingest → rollup → pricing → invoice.

Real-Time NMEA Navigation System (C++17) Embedded Linux | https://github.com/umarsarshid/NMEAParser

- **System Architecture:** Evolved a prototype parser into a fault-tolerant, **multi-threaded** system. Solved critical "Zombie Process" issues in **Docker** containers by correctly handling PID 1 signal propagation and thread joining.
- **Professional Tooling:** Implemented a robust CI/CD-ready environment using **CMake**, **GoogleTest**, and **Docker** for cross-platform reproducibility.
- **Key Integrations:** Engineered drivers for **UART/Serial** and **UDP** networking, visualizing real-time metrics via a custom **TUI dashboard** and **WebSocket** React frontend.
- **AI-Augmented Development:** Leveraged AI as a technical co-pilot to simulate an Agile SDLC, accelerating the implementation of complex features like Thread-Safe Queues (`std::condition_variable`) and RAII resource management.

VisionLib SDK Support Simulator | C# .NET, VS Code, Git | https://github.com/umarsarshid/Visionlib

- **Simulated Product Support Lifecycle:** Developed a C# Class Library ("the product") and a client Console Application to mirror real-world customer integration scenarios using .NET 8.
- **Root Cause Analysis & Debugging:** Reproduced a critical IndexOutOfRangeException crash reported in the client application; utilized VS Code debugging tools to diagnose the failure and implemented a defensive programming fix to resolve the issue.
- **Technical Documentation:** Authored a proactive Application Note ("Integrating VisionLib with Console Apps") and a reactive Knowledge Base (KB) Article troubleshooting startup errors, directly demonstrating the ability to translate technical concepts for customer consumption.

Industrial Camera SDK Simulation & Diagnostic Tool | *C++, C#, .NET 9, OpenCV* | *https://github.com/umarsarshid/IndustrialCamProject*

- Architected a cross-platform Hardware Abstraction Layer (HAL) in C++ to simulate industrial sensor behavior, including software triggers, exposure timing, and buffer management.
- Engineered a Managed/Unmanaged Interop bridge using P/Invoke, safely marshaling high-bandwidth video data (30 FPS) from the unmanaged C++ heap to a C# .NET GUI.
- Solved complex integration issues, specifically rectifying memory stride alignment (BGR vs. RGBA) and implementing zero-copy pointer arithmetic for real-time rendering.
- Developed a diagnostic profiling mode to intentionally simulate and detect unmanaged memory leaks, utilizing OS-level profiling tools to verify fixes.

Education

Simon Fraser University | Bachelor of Science in Computer Science | September 2014 - January 2020
Course Highlights:
- Data Structures and Algorithms, Data Science, Database Systems, Web Development

Professional Certifications
- Data Camp: Data Engineer Associate Certification, May 2024
- Data Camp: SQL Associate Certification, April 2024

Technical Skills

- **CRM & Sales Tools:** Salesforce (SFDC case management, reporting, data hygiene), HubSpot (administration, automation, sequences), sales operations best practices
- **Data Analysis & Reporting:** SQL (PostgreSQL), Python (Pandas for data manipulation), Excel (advanced

formulas, pivot tables, data analysis), ad-hoc reporting, exception-based reporting
- **Data Visualization:** Tableau (dashboard creation), Looker-compatible tools, Excel charts, interactive visualizations, KPI tracking
- **Technical Proficiency:** Database management (MongoDB, PostgreSQL), API integration, data pipeline development (Apache Kafka, FastAPI), Git version control
- **Core Competencies:** Data hygiene enforcement, sales process optimization, cross-functional collaboration, problem-solving, system troubleshooting, RFP support

Key Achievements

- **CRM Implementation Success:** Delivered complete HubSpot CRM rollout in 1.5 months with full team adoption and comprehensive training materials
- **Data Quality Improvement:** Redesigned legacy data system, implementing structured data hygiene practices and reducing data cleanup requirements
- **Sales Growth:** Contributed to 40% client growth through strategic CRM utilization and data-driven account management
- **Automation & Efficiency:** Reduced report generation time by 30% through automated dashboard development and streamlined data processes
- **C# & Debugging:** Experience building and troubleshooting C# .NET applications in Visual Studio Code, including diagnosing runtime exceptions and managing DLL dependencies.
- **Technical Writing:** Proven ability to create customer-facing documentation, including Application Notes for product integration and Knowledge Base (KB) articles for troubleshooting.
- **Support Simulation:** Created the "VisionLib" portfolio project to demonstrate the full cycle of reproducing, diagnosing, fixing, and documenting technical issues.
-

Professional Attributes

- **Analytically Minded:** Natural problem-solver with strong ability to interpret data and derive actionable insights
- **Detail-Oriented:** Exceptional attention to detail in data management, reporting accuracy, and system configuration
- **Proactive Learner:** Quick to master new tools and concepts; completed two professional certifications in 2024
- **Tech-Savvy:** Proficient across multiple software platforms with continuous commitment to upgrading technical skills
- **Adaptable:** Thrives in dynamic, fast-paced environments; quickly adjusts to changing priorities and new challenges
- **Customer-Focused:** Understands importance of supporting sales teams and ensuring operational needs are met efficiently
- **Collaborative:** Strong interpersonal and communication skills; proven ability to work across departments and explain complex data clearly