Olle Marmenlind

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Computer Engineering undergraduate with production experience in distributed systems and cloud infrastructure. Proven track record of navigating ambiguity to deliver scalable .NET and embedded solutions in cross-functional R&D environments.

Education

Royal Institute of Technology (KTH) Stockholm, Sweden
B.Sc. in Computer Engineering. **Expected June 2027**

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Microcontrollers, Computer Networks, Databases

Projects

- **FBG Interrogator (C#/.NET + C/FreeRTOS) – Industry R&D with Proximion AB**
  - Architected a preemptive multithreaded system using FreeRTOS on a RISC-V microcontroller, utilizing binary semaphores to synchronize high-priority ISRs with background data processing tasks.
  - Engineered a low-latency C#/.NET PC host application, implementing USB Bulk Transfer protocols to maximize data throughput and visualize high-frequency sensor streams from the RISC-V firmware.
  - Built a self-hosted Linux CI/CD pipeline using hermetic Docker containers to enforce linting, formatting, and build validation across firmware and PC-host repositories.
  - Achieved sub-millisecond sensor readout in lab trials, enabling high-performance real-time analytics for industrial monitoring.
- **.NET Sales Catalog Generator (C#/.NET) – Sevan AB**
  - Developed a cross-platform desktop application using Avalonia UI, enabling unified deployment across Windows, Linux, and macOS from a single C# codebase.
  - Built an ETL pipeline to ingest CSV datasets, merge remote assets via REST APIs, and render print-ready PDFs programmatically.
  - Replaced manual design workflows with automated generation, reducing production time from hours to <3 minutes while eliminating transcription errors.
- **B2B Scan-to-Order (Android/Kotlin) – Sevan AB**
  - Architected a fault-tolerant Android application using Kotlin Coroutines for asynchronous concurrency, ensuring thread safety on resource-constrained devices.
  - Engineered a distributed data synchronization engine with automatic failover strategies and atomic transactions, guaranteeing data consistency across cloud (Firestore) and external REST APIs.
  - Integrated Google ML Kit for on-device barcode inference, eliminating network dependency to enable scanning operations in low-connectivity field environments.

Experience

Sevan AB Stockholm, Sweden (Remote)
Product Owner (Technical, Part-Time During Studies) March 2022 – Present

- Promoted from Intern to Product Owner; managed full technical lifecycle from initial design to B2B integration and deployment.
- Translated business requirements into strict technical specs (API schemas), enabling external teams to build scalable, compliant solutions.
- Established QA protocols and GCP deployment pipelines, ensuring high availability for mission-critical business operations.

Skills

- **Languages:** C, C++, Java, C#/.NET, Kotlin
- **Systems & Infrastructure:** Linux, Docker, FreeRTOS, RISC-V, CI/CD, Real-time Systems, Cloud Computing (GCP)
- **Data & Networking:** SQL, NoSQL (Firestore/MongoDB), REST, TCP/UDP
- **Tools:** Git, CMake, Bash