

# Decades of Code

A Journey in Software Engineering: 1982 — Present

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Experience · Expertise · Evolution

# The Origins (1982-1983)

- **Started in 1982:** Began the journey with Basic and Assembler on a Sinclair ZX 81, laying a low-level foundation for understanding how machines work.
- 📺 **First Commercial Success:** Sold my first proprietary software for **5,000 DM** in 1983.
- ⚙️ **Early Discipline:** These constrained environments taught me the value of efficient, optimized code long before modern frameworks existed.



# Academic Foundation

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## Bachelor of Software Engineering

Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI)

Focused on the theoretical underpinnings of computer science and AI. This rigorous academic environment instilled a research-driven approach to solving complex software problems.

## Master of Software Engineering

Fraunhofer Institute for Software Engineering

### Thesis: "Designing Software for Maintenance"

Deep dive into the lifecycle of software. My research prioritized long-term system viability, architecture, and maintainability—principles that guide my work to this day.

# Professional Evolution (1997-2025)

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Full Time Developer

Consultant

Trainer

Project Lead

Lead Architect

Head of Engineering and Architecture

Head of Software Development AI

I never stopped developing software

# Professional Tech Stack

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## Systems

Assembler, C, C++

Embedded & Performance  
critical



## Enterprise

Java, C#, Kotlin

Large-scale server  
backends



## Modern/Scripting

Python, Ruby,

TS/JS  
Rapid dev & Web  
ecosystems

# Academic & Esoteric Knowledge

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True engineering expertise comes from understanding different paradigms, not just syntax. I have studied and used diverse languages that shape how I think about code:

 **Functional:** Haskell, Lisp (Scheme/Common Lisp)

 **Structured/Modular:** Modula, Oberon

 **Logical/Stack:** Prolog, Forth

 **Scientific:** Fortran



# Systems & Scale

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## Embedded Systems

Developed critical software for automotive systems and multi-media units where resource constraints and reliability are paramount.

## Large Server Systems

Architected massive, scalable backends handling high throughput, ensuring uptime and data integrity for enterprise clients.

## Desktop Applications

Created rich user experiences with complex state management and local processing requirements.



# Engineering Philosophy

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## Architecture First

Code is a liability; Architecture is an asset. I prioritize clean, modular designs that decouple systems and reduce technical debt from day one.



## Quality Assurance

Static and dynamic QA are not afterthoughts. They are integral parts of the pipeline, ensuring robustness through automated testing and analysis.



## Design Patterns

Leveraging proven patterns to solve recurring problems, ensuring code is readable, maintainable, and familiar to other engineers.



# More Than Just Code

"I have seen a lot of things in my career."

My value isn't just in writing syntax—it's in decades of solving hard problems, preventing failures, and designing systems that last.

# Image Sources

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