

Being **early** is indistinguishable from being **wrong**.

For about four years. Then the thing gets a name and everyone agrees it was obvious. I have lived inside that gap thirteen times. Two receipts first; the rest is measured below.

\$1B

Dynamo Software, valued in 2021.

Eleven years there, 2002–2013, three of them as Chief Software Architect.

€1M

Practicedent, sold to CURADEN AG.

First company, built and sold within two years.

What I am for

-
- 01 System design and software architecture
 - 02 Technical leadership and managing engineering teams
 - 03 Distributed software systems
 - 04 LLM agent integrations
-

Ignore this CV if

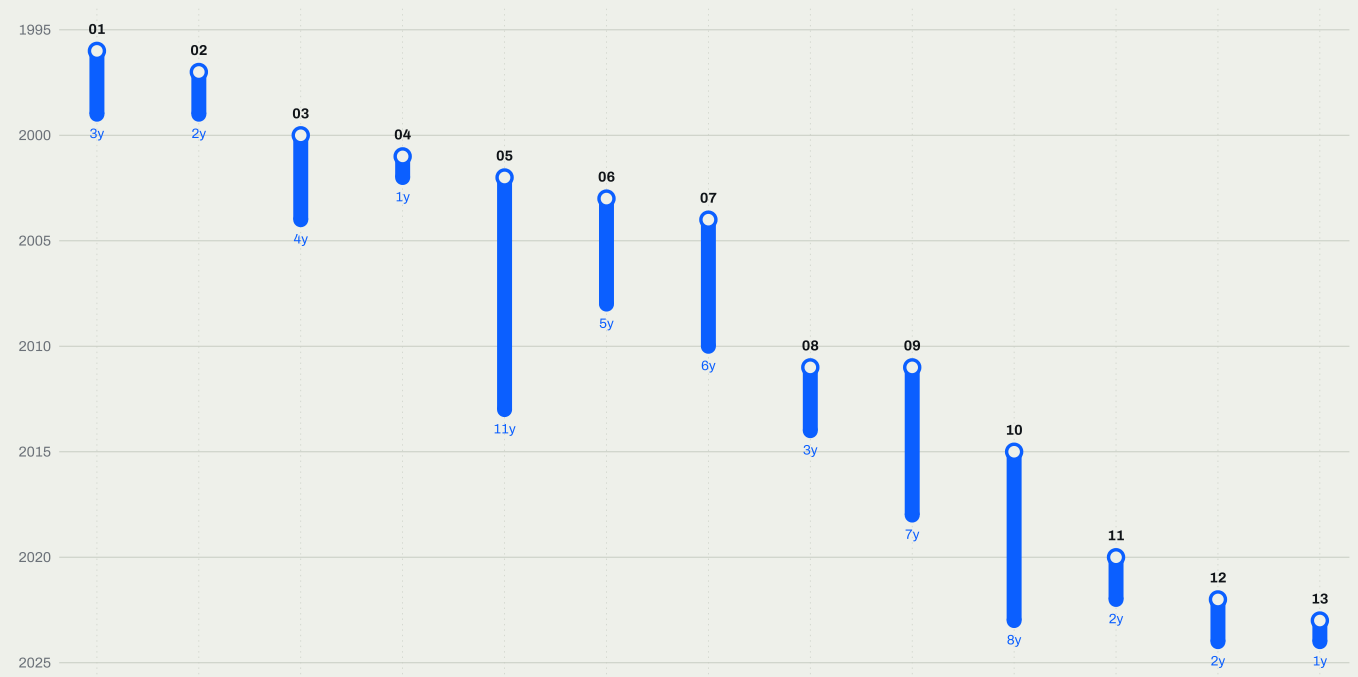
- 1. the phrase you hear most in this building is “that’s hard”, not “that’s interesting”;
- 2. people here grow by who they had lunch with, not by what they shipped;
- 3. you are still waiting for AI to prove itself;
- 4. “let’s wait and see” has ever won an argument here;
- 5. you need someone else to have named a thing before you will fund it.

Everyone else, read on.



Plate I · what and when

Thirteen systems. Each lane runs from the year I built the thing to the year the industry settled on a name for it.



○ the year I built it ● the year it got a name

01 Inverted index, compressed posting lists, proximity ranking
on a 386 with 4 MB, Windows 3.1
[1996 → Lucene, 1999](#)

02 Cooperative concurrency: every query a state machine
stepped on idle
no OS threads available
[1997 → State Threads, 1999](#)

03 Radio and TV archives digitised to MP3, a portable player
reaching them
BrandCom, later acquired by a US TV network
[2000 → podcasting, 2004](#)

04 Unit tests, derived from watching QA repeat what code could
check
not read anywhere
[2001 → TDD, 2002](#)

05 HTML as the user interface of a desktop application
first pilot, WebMessenger
[2002 → Electron, 2013](#)

06 Attribute-annotated objects bound to database operations
and UI controls
Dynamo, .NET
[2003 → Entity Framework, 2008](#)

07 UI generated from the schema; self-arranging layout
reshaped by drag and drop
a grid renderer for WinForms
[2004 → responsive design, 2010](#)

The gap is closing. Not because I slowed down: the industry got faster.

08 A backend made only of plugins with manifests and a global
event bus
Dynamo 6
[2011 → event-driven microservices, 2014](#)

09 EDL: one declarative language for schema, process and
screens
the foundation of Dynamo 6
[2011 → low-code platforms, 2018](#)

10 Shopping by sentence, not by keyword
HashStyle, on the language models of 2015
[2015 → LLM shopping assistants, 2023](#)

11 Bet the company on language models, days after GPT-3
the client I wrote to was skeptical
[2020 → ChatGPT, 2022](#)

12 The model reads, generated code verifies, the mismatch goes
back as a prompt
financial tables with merged cells
[~2022 → verifier loops, 2024](#)

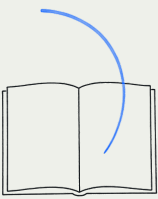
13 An LLM-facing layer in front of every data source; forms
assembled inside the chat
prototype rejected as too unfamiliar
[2023 → MCP, 2024](#)

1995

The self-taught

1994 – 1998

Specialised school for electronics and computing
Sofia University, BSc Mathematics, 1995–1998
Ciela, senior programmer, 1996–1997



2000

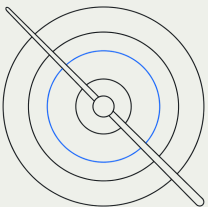
- At 17, learned C++ from a Russian-language book without knowing Russian. Wrote a DOS program that plots any typed function: expression translated to reverse Polish notation, numeric roots, differentiation, integration, a windowed interface. No internet.
- At 18, hired straight in as senior programmer at Ciela, a legal information system. Requirement: full-text search on a 386 with 4 MB of RAM, under Windows 3.1, serving several searches at once on an OS without threads.
- Built it in six months: dictionary stemming, noise removal, inverted index, posting lists sorted and compressed in blocks of 10,000, merge-style intersection that never fit in memory, proximity scoring on the survivors. Concurrency by hand: each search a state machine advanced one step per idle message.

2005

The reluctant commander

1999 – 2001

BrandCom, Israeli startup
programmer, then CTO at 21



2010

- First web work. Built pizza911, one of the first online shops in New York, in C++ CGI.
- Digitised and archived radio and television audio using MP3 while it was still an exotic format; prototyped a portable player that reached the archives. The archiving product succeeded; the company was later acquired by an American TV network.
- While the founder was abroad, the team was stalling. Brought in process and discipline with no title; people followed. On his return he made me CTO. Ran about 25 people across 10 projects for two years, then left: the pressure was more than I wanted to carry.

Extinct branch: the portable archive player. Three years later the world called the idea podcasting.

2015

The heretic

2001 – 2002

WebMessenger, senior programmer
Microsoft .NET Beta 1 programme



2020

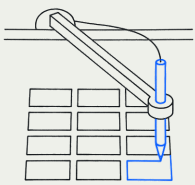
- Introduced unit testing to the company. I had not read about it; I had watched QA spend days on checks a program could run in seconds.
- Ran the first pilot using HTML as the front end of a desktop application, for effects that were painful in native controls.
- Member of Microsoft's .NET Beta 1 group a year and a half before release, feeding back on C#/COM interop and on memory owned by unmanaged code. Argued that C# or Java should replace C++ for business logic. Management declined. I left.

2025

The architect

2002 – 2013

NetAge Solutions, later Dynamo Software
senior developer, team lead, then Chief Software Architect for three years

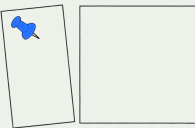


- Joined to pilot C#. Delivered TTFSE, an EU-sponsored logistics, route-planning and customs-documents system, on time: first web services, first interactive route map.
- Moved to Dynamo, a CRM for investment bankers that lived entirely inside Microsoft Exchange, with Outlook as the client and the Exchange store as a document database. Filtering, aggregation and relations were thousands of lines of if/else. Replaced them with an XML metadata layer: schema changes went from slow and fragile to routine.
- For the full .NET rewrite, built an attribute-based binding engine mapping annotated objects and controls to database operations, then removed hand-built WinForms screens altogether: the UI is generated from the business schema, laid out by a responsive engine with an HTML-table model inside, and reshaped by users with drag and drop. The product became more flexible than its competitors. That work earned the title.
- For Dynamo 6 (2013): designed EDL, the Entity Definition Language, covering business-object-to-schema transformation, process descriptions and control descriptions, and a backend built entirely from plugins with manifests and a global event bus.
- Left in 2013 to found my first company. Dynamo went on to become a category leader: Francisco Partners majority stake in 2017, Blackstone growth investment in 2021 at a reported valuation approaching \$1B, over 1,000 clients today. Dynamo is now a BioSeek client.

The founder, twice

2013 – 2018

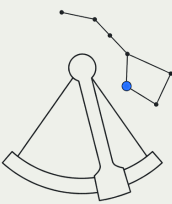
MediCloud, co-founder, 2013–2015
HashStyle, co-founder, 2015–2018



- MediCloud started from a personal collision with healthcare: a patient-owned health record, readable and interactive rather than hundreds of pages. Too large for the team. Pivoted to dental practices, where we had an investor.
 - Built Practicedent, a cloud CRM/ERP for dental clinics in Switzerland and Germany, in more than ten languages: a “mini Dynamo” on the MEAN stack while every part of it was brand new, with JSON flowing unchanged from browser to database. About 90% less code than the original. Acquired by our investor CURADEN AG in 2015; the founders exited for around €1M after two years.
 - HashStyle: an e-commerce platform that understood sentences, not keywords, on the primitive language models of 2015. Came within reach of an acquisition by Viber. The deal fell through and the company nearly went under.
- Extinct branches:** the patient-owned record, and HashStyle itself. Descendants: the one-language, one-representation stack I have used since, and the semantic search that became BioSeek.

The cartographer

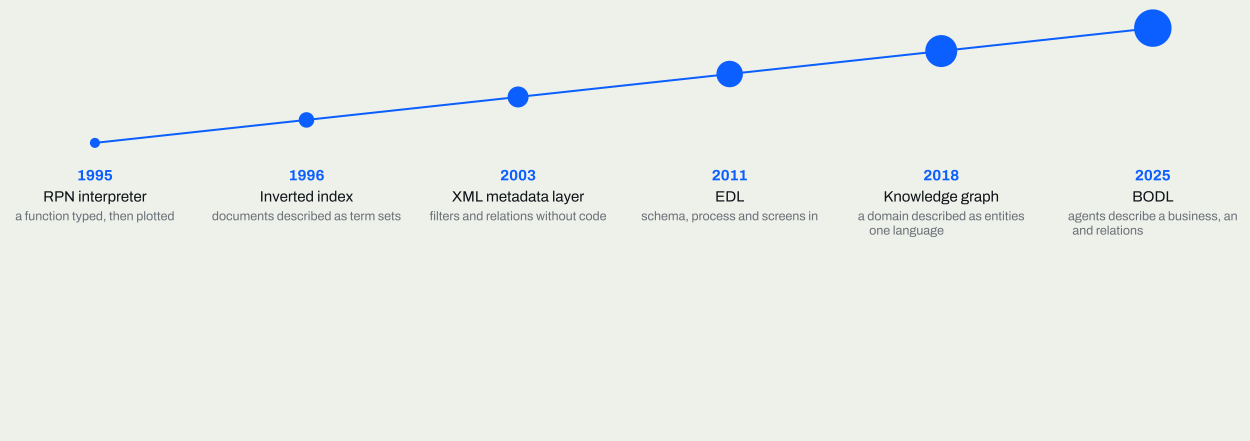
2018 – today
BioSeek JSC, CEO and co-founder
bioseek.eu, aerosaas.ai



- A biotech client asked for a better search engine. What the text actually contained was a knowledge graph waiting to be extracted. BioSeek was founded to build it.
 - Wrote an entity-recognition algorithm that finds around one million genes, compounds, organisms and drugs in a page of text in under a millisecond, with statistics and careful memory layout rather than machine learning. Licensed to Dynamo Software, where it links customer databases to document corpora for 42 clients, including Lockheed Martin and the University of Pennsylvania.
 - Moved the company to language models in 2020, days after GPT-3. Receipt recognition for a fuel company at 99% accuracy with OCR plus GPT-3.5, before vision models existed. A CV platform for a recruiter: PDFs to strict JSON under a fixed ontology, semantic search with reranking, and matching that splits each CV and job ad into semantic cores, scores each with the model, and lets the model run the conversation until the gaps are filled.
 - For Dynamo: natural language translated into their filtering meta-language, saving experienced users 10–15 minutes a query, with layer-by-layer schema extraction because the context window could not hold the schema; extraction of financial data from Excel and PDF with generated Python checking the arithmetic and feeding mismatches back; and a prototype where every data source sits behind an LLM-facing layer and every operation runs from chat, with forms assembled on the fly. Rejected as too unfamiliar, a year before MCP.
 - A phone-line pipeline (noise removal, specialised speech-to-text, an adapted model correcting transcription errors) reaching near-perfect success at 5–8 seconds of latency; a US legal knowledge graph across federal and state law, amendments and court audio with speaker identification, queried by agents forbidden to use their own legal memory.
 - AERO: agents interview a client and build the complete operating system of the business, CRM to ERP to documents. Not by generating and testing millions of lines of code, but by writing BODL, the Business Object Definition Language, EDL's direct successor, which an engine executes.
- Paused branch:** the full public-biology graph. Converting hundreds of millions of pages costs millions in inference even at the cheapest models. The engine exists; the fuel does not, yet.

One idea, six times

Every period of my career is the same move, one level higher: describe the thing, then let an engine execute the description. The tool in my hands evolved. The idea did not.



Everything, in order

Twenty-three systems, and what each one was built in. This is a small share of what I have shipped — the ones kept here are the ones where the hard part was the engineering.

DOS math function plotter C++	1994
Ciela full-text search C++, Delphi, MFC	1996
pizza911 online shop C++ CGI	1999
Radio/TV MP3 archiving, portable player C, C++	2000
WebMessenger C++, MFC, DirectX, ATL	2001
TTFSE logistics and customs C++, VB, C#/.NET, MS SQL, HTML/JS	2002
Dynamo on Exchange, XML metadata layer C/C++, COM, VB	2003
Dynamo .NET binding engine C#, COM, C++	2003
Dynamo schema-generated UI and layout engine C#	2004
Dynamo 6: EDL and plugin backend C#, C++	2011
MediCloud / Practicedent MEAN	2013
HashStyle semantic e-commerce search .NET	2015
BioSeek entity-recognition algorithm .NET, Go	2018
BioSeek biotech knowledge graph .NET, JS, Go, Neo4j, MongoDB	2018
Dizelor receipt recognition MEAN, LLM	2021
Arena CV ingestion platform MEAN, LLM	2022
Arena candidate–job matching MEAN, LLM	2022
Dynamo text-to-grid C#, Go, Python, LangChain	2022
Dynamo Excel/PDF extraction Python, LangChain, LangGraph	2022
Dynamo LLM-native layer and chat frontend Python, LangChain, LangGraph	2023
LLM on a phone line Python, LangGraph, MEAN, Elasticsearch	2024
US legal knowledge graph Python, LangGraph, PostgreSQL, D3.js	2024
AERO / BODL Python, LangGraph, MEAN, React, D3.js	2025

Education

Sofia University
BSc Mathematics

1995–1998

Specialised secondary school for electronics and computing machines
Bulgaria

to 1995

Publications

- [Dreaming in Code: Envisioning the Perfect Programming Language \(DreamLang\)](#) Medium
- [Metaprogramming: An elegant weapon for a more civilized age](#) 2026
- [The AI Apocalypse Won't Come From Superintelligence — It Will Come From Layoffs](#) 2026
- [From Neuron to Agent: What We Learned When We Tried to Speak to Machines](#)
- [Mathematics Is the Most Beautiful Thing in the World. School Made Sure You'd Never Find Out.](#) in Bulgarian
- [Erlang: The Curiously Strong Language Every Developer Should Learn](#)
- [Redis: From Simple Key-Value Store to One-Stop Database Solution](#)
- [Metamorphosis to Greatness: How Startups Transformed Through Pivoting](#)
- [The Tyranny of Bureaucracy and the Heroic Individual](#)
- [Unearthing the Hidden Genius of ChatGPT and Its ilk: A Lobster's Guide](#) 2023
- [Adopt GPT, or Be History!](#) 2023
- [The Hitchhiker's Guide to Artificial Intelligence](#) 2023
- [Leadership Lessons for Business from The Art of War](#) 2023
- [The Quantum Computing Tsunami: A Looming Threat to Cryptocurrency Security](#) 2023

Five books that shaped the work

- [The Nature of Software Development](#), Ron Jeffries
- [Enterprise Integration Patterns](#), Hohpe and Woolf
- [Lean from the Trenches](#), Henrik Kniberg
- [Seven Concurrency Models in Seven Weeks](#), Paul Butcher
- [Learn You Some Erlang for Great Good!](#), Fred Hébert

Where to look

A directory. The two products live today, then four recordings of systems from the index, running. Every link opens; nothing here is a slide.



BioSeek, the biotechnology re:search engine.

The questions a drug programme turns on — which targets hold up, what is patented and by whom, where the safety signals are, who else is in the race — as one graph the agents reason across, answered with the sources attached.



AERO, agents that build the operating system of a business.

Agents interview a client and write BODL, the Business Object Definition Language; an engine executes it. CRM to ERP to documents, without generating a line of code.

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| 01 | BioSeek
the re:search engine on a live question

Whether you are free to develop something: the graph answers valid, safe, and clear to own, and shows where each part of that came from.

Watch → youtube.com/watch?v=3q487_14YPQ | 2018 |
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| 02 | Contract analysis
clause risk, scored and sourced

Reads an agreement, flags the risky clauses by severity, proposes revised wording, and links each point to the case law and regulation it rests on, so a lawyer can check every call against the original.

Watch → loom.com/share/bd1e3747be1b49c781b67e0d5d40bb7b | 2024 |
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| 03 | Public procurement
irregularities and live prices

Reads a public tender, flags irregularities such as specifications quietly written around a single supplier, and prices each line item against market alternatives it finds and cites.

Watch → loom.com/share/592a41f520534b2aa13ff7411e60c9d2 | |
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| 04 | Semantic retail search
shopping by sentence, recorded in 2017

HashStyle. A shop you search by asking, in plain language, on the language models of 2015. The engine underneath became BioSeek.

Watch → vimeo.com/199630247 | 2015 |
|-----------|--|-------------|
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HOW THIS WAS MADE

Fifteen minutes to set up, one instruction: a CV that does not blend into the pile. The agent worked the roles in turn — designer, copywriter, illustrator, critic — and built its own instruments as it went: a check that fails when a page overflows A4, a comparison that shoots every page from the browser and from the PDF and reports what differs, a filter that flattens each drawing onto exactly three inks.

The illustrations are generated. The charts are d3. No design tool was opened.

Item 04, demonstrated rather than asserted.