Csongor Bartus

Software Architect & Product/Design Engineer — React · TypeScript · Design Systems · Formal Methods

Romania / Hungary · Europe (GMT+2) · Open to relocation
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SUMMARY

Software architect and product/design engineer with more than twenty years building correct, production-ready software. I combine formal methods (ologs, finite state machines) and semi-formal methods (concept design, scientific method) to make software likely-correct by construction.

Track record across the full lifecycle: co-founder and CTO of multiple ventures, including a successful e-commerce exit; regional lead at a Siemens software company, managing a team of thirty or more developers; and high-impact consulting for clients in the US and Silicon Valley, the EU, the UK, Singapore, and Australia.

Deep expertise in modern front-end development (React since 2018, TypeScript, design systems since 2015) and UI/UX design (works featured in galleries), grounded in computer science and mathematics. Early AI adopter in 2002 with Bayesian and neural network systems; currently focused on AI engineering and agentic development using correctness-focused methodologies.

Seeking **Staff or Principal Front-End Engineer, Founding Engineer, or Software Architect** roles. Available for on-site, hybrid or remote work.

SELECTED OUTCOMES

- **Co-founded and exited** a market-leading niche e-commerce company (Smuff), with forty-four percent customer retention, 99.9 percent uptime, and national media coverage.
- **Led a developer team of thirty or more** and opened new offices as Regional Lead at Evosoft/Siemens, a software company with more than five hundred employees.
- **Led the React team** at a Silicon Valley startup (Mtx.gg), contributing to product

design and software architecture alongside department leaders.

- **Established React development culture** at Lynx Solutions (more than one hundred employees) as Senior or Lead Front-End Developer.
- **Raised seed funding in 2002** for an AI-based network management system built on Bayesian networks — a concept significantly ahead of its time.

CORE COMPETENCES

Architecture and correctness: Software Architecture · Software Correctness · Formal Methods (Ologs, Finite State Machines) · Semi-Formal Methods (Concept Design, Scientific Method) · Component-Based Architecture · Functional-Reactive Programming · Declarative Programming

Engineering practice: BDD · TDD · Model and Property-Based Testing · Rapid Iteration · AI Engineering · Agentic Development · LLM-Driven Process Automation

Front-end and design: React (since 2018) · TypeScript · JavaScript · Next.js · GraphQL · REST · HTML · CSS and SCSS · Design Systems (since 2015) · UI/UX Design · Responsive Web Design · Usability

Leadership and communication: Technical Leadership · Technical Writing

Earlier stack: Ruby, Ruby on Rails, PHP, Laravel, Yii, WordPress, MySQL, SQL, C++, C, Java, Delphi, Pascal, Assembly, VBA

PROFESSIONAL EXPERIENCE

Osequi — Founder, researcher and developer

Europe (Remote) · 2020 – Present

Independent software R&D studio focused on formalism, correctness, cost, rapid iteration, and AI correctness. Consulting for regional and global clients, including Silicon Valley companies.

- Develop and apply novel methodologies combining formal (ologs, FSMs) and semi-formal (concept design, scientific method) techniques to create likely-correct software with the help of LLMs.
- Deliver production-ready web software, technical writing, and AI agent design engagements using these methods.
- Build studies and prototypes that demonstrate likely-correct software principles in practice.

Metamn — Independent consultant, Product and UI/UX Designer, Senior Full-Stack and Front-End Developer

Europe (Remote) · 2013 – 2022

UX/UI design / full-stack / front-end consultancy to global clients in the US and Silicon Valley, Singapore, the UK, and the EU. Specialized in React, TypeScript, JavaScript, design systems, GraphQL, component-based architectures, and functional-reactive programming.

- Designed and developed websites featured in online galleries (Brutalist Websites, WordPress Theme Store); work recognized by industry leaders.
- Authored blogs on design and development; the 2016 React article “Tomorrowww” predicted AI’s role in design.
- **Mtx.gg** (Silicon Valley startup, about thirty employees) — Senior or Lead React Front-End Developer, Mar 2022 – Sep 2022: Led the React team; contributed to product design and software architecture alongside department leaders.
- **Lynx Solutions** (software company, more than one hundred employees) — Senior or Lead React Front-End Developer, Nov 2019 – Sep 2020: Established React development culture; led team efforts and contributed actively to projects.

Smuff — Co-founder and CTO

Romania · 2006 – 2013

Co-founded and led technology and product for a market-leading niche e-commerce company.

- Owned product, architecture, UI/UX, software development (Ruby, Ruby on Rails, PHP, Laravel, Yii, WordPress, MySQL), testing, and deployment.
- Achieved forty-four percent customer retention and maintained 99.9 percent uptime.
- Company featured in national media for innovative products and Web 2.0 usage; successfully exited the venture.

Arigato — Co-founder

Romania · 2006 – 2008

Co-founded an electronic music booking agency and event organizer with major partners (MTV Romania, Viacom Hungary, Sziget Festival).

- Organized about one hundred events country-wide, including festivals with

roughly five thousand participants.

- Applied software engineering principles to event management and logistics. Venture shut down due to external political factors.

Evosoft / Siemens — Regional Lead

Hungary, Romania · 2004 – 2006

Led operations for an entire region within a large software company of more than five hundred employees.

- Collaborated with central and regional C-level officers on strategy and execution.
- Opened new offices, hired, and managed a team of thirty or more developers.

Cathaia — Co-founder and CTO

Hungary, UK, Ireland · 2002 – 2004

Co-founded a startup developing an AI-based network management system built on Bayesian networks.

- Led a ten-person development team in Budapest, collaborating with a four-person executive team in London and Dublin.
- Raised seed funding in a nascent startup environment in 2002. The technology concept was significantly ahead of its time; the company closed after failing to secure Series A funding.

Consultronics — Lead Software Developer and Sales Support Engineer

Hungary, Canada, Europe · 1999 – 2002

- Led a team of developers creating enterprise telecom software (Delphi, SQL, UNIX, Linux).
- Traveled globally as a Sales Support Engineer, frequently requested by clients for on-site technical problem-solving.
- **1997 – 1999 (earlier role):** Developed internal office software using Borland Delphi, SQL, and Microsoft Excel and VBA; assisted the CEO in data-driven decision making.

EDUCATION

University of Transylvania — Brașov, Romania · 1995 – 1999

Major: Computer Science — Computer Architecture, Operating Systems (DOS, Novell, Windows, UNIX), Database Systems (SQL), Data Structures and Algorithms, C, C++, Java, Borland Delphi.
Minor: Mathematics — Algebra, Analysis, Geometry, Calculus, Probability and Statistics.

Computer Science High School — Romania · 1990 – 1994
Specialized computer science curriculum; first place, regional Informatics Olympiad.
Algorithms, Data Structures, Assembly, Basic, Pascal, C, C++.

LANGUAGES

English (expert) · Hungarian (native) · Romanian (conversational)

WORKING STYLE

High-focus deep work; highly independent and autonomous; thrives in remote and asynchronous environments (written communication preferred, comfortable with minimal weekly meetings). Values productivity over performative culture. Available for on-site or hybrid work for teaching, consulting, and presenting.