

Norbert Pozsonyi

Senior Software Engineer - browser-native SaaS developer

Budapest, Hungary (EU) · norbert.pozsonyi@gmail.com · +36 30 459 4667

[linkedin.com/in/norbertpozsonyi](https://www.linkedin.com/in/norbertpozsonyi) · github.com/noreng · www.truzme.com

Open to senior, staff, team lead or founding-engineer roles · remote (EU/US) or Budapest hybrid

SUMMARY

Structural engineer turned software engineer - 18 years building things, from spaghetti bridges to steel and concrete to code. A browser-native specialist at my best pushing the browser past where it's supposed to go: real-time, interactive, high-performance work with React, TypeScript, and Three.js / React Three Fiber with custom GLSL shaders, Canvas, and WebCodecs. I solve full-stack problems and reach onto the Node.js backend when the product needs it - but the front end is where I go deep. I once scaled a browser-side data architecture from 10M to 100M+ events, and I build rendering pipelines that have no business running in a tab. I'm also at my best on rewrites that can't stop the system - framework swaps, plus scaling and big refactors, done live in production. I've shipped as a founder, as employee #5, and as engineer #2 - the person startups bring in early to own the core and the parts that are hard to get right. My calling card is Truzme - a free browser-based structural-analysis tool I built solo, now used in 40+ countries and in academic research.

CORE SKILLS

Languages: TypeScript, JavaScript

Frontend: React, React Three Fiber, Three.js, custom GLSL shaders, Canvas, SVG, WebCodecs, Zustand, Next.js, D3.js

Performance & data: Large-scale browser-side data architecture, Web Workers, IndexedDB, performance optimization (10M → 100M+ events)

Backend (full-stack reach): Node.js, NestJS, Koa, PostgreSQL, MikroORM, Drizzle ORM, Puppeteer, Google Cloud, AWS

Domains: Data visualization, process mining, media processing, canvas apps, computational & structural engineering

Also: Technical leadership, mentoring, architecture, startups

SELECTED PROJECT - TRUZME

Side project, since 2024 · free browser-based structural analysis - www.truzme.com

- Built and launched solo a free, browser-based structural-analysis (truss) tool used by students, teachers, engineers, and researchers in 40+ countries - 10k+ monthly visits, fully organic.
- Used in academic research, not only in teaching - adopted by researchers as well as students and engineers.
- Stack: React, TypeScript, SVG, Canvas, Web Workers, IndexedDB, Zustand, Drizzle ORM, Vercel - on a custom in-browser finite-element engine.

EXPERIENCE

Full Stack Engineer, Lead Developer - Tutorial.ai - www.tutorial.ai

Mar 2024 – Mar 2026 · Remote / Budapest - early stage startup, 1st full-stack hire

- Second engineer (first full-stack hire) at an early-stage AI-assisted video SaaS for product demos; became sole owner of the editing and rendering stack - real-time, browser-based editing at 60 fps with AI assistance and slide editing.
- Migrated the rendering pipeline from PixiJS to Three.js and React Three Fiber; built a slide editor with custom GLSL shaders.
- Built the video-generation pipeline (render to MP4) and solved real-time algorithmic challenges: camera movement, auto-zoom, cursor smoothing, auto-cut.
- Built AI features: auto-narration (voiceover scripts generated from screen recordings) and document-from-video extraction.
- Full technical ownership - architecture, the rendering stack, and supporting backend (auth, access control, asset management).

Senior Frontend Developer - Transcend Infra - www.transcendinfra.com

Feb 2023 – Feb 2024 · Budapest - US backed Hungarian startup, 70+ employee

- React / Next.js lead; owned refactors, MUI and framework upgrades.
- Built an interactive plant-graph flowchart and a d3.js + Canvas equipment analyzer.
- Rewrote the site-mapping tool from OpenLayers to the Google Maps API on a custom React framework.

Full-Stack Developer -> Developer Team Lead - ABBYY - www.abbyy.com/timeline

Aug 2016 – Jan 2023 · Budapest · US startup, acquired by ABBYY

- Joined TimelinePI as the 5th employee of a US-based process-mining startup; stayed through the ABBYY acquisition and led the Timeline Processing Team (ABBYY Timeline) for 2.5 years.
- Scaled the browser-side data architecture from **10M to 100M+ events**; cut business-duration calculation for 100M events from ~10 minutes to a few seconds.
- Led the React-in-AngularJS incremental migration - replacing the engine while the car kept moving.
- Delivered the layout and redesign for ABBYY Timeline 6.0 and an Alteryx data connector.
- Architecture decisions, PR reviews, interviewing, onboarding, mentoring, and internal technical training.

Founder & CEO - Exelean

Aug 2014 – Aug 2015

- Founded a bootstrapped startup: an online platform for engineers to create and share calculations.
- Gained Autodesk's attention (they initiated partnership talks); declined a term sheet from OXO Labs; 1st prize, PwC Business Model Competition; CEE Liftoff 2015 top-10 finalist in the region.
- The venture didn't take off - the experience that drove my pivot from structural engineering to software.

Earlier - Structural Engineering - Wienerberger · Feher-Laumann-Stangenberg · Mérnök-Mátrix · ÉMI

2008 – 2014 · Győr / Hungary

- Six years as a structural engineer and technical consultant: ~70 projects in steel and reinforced concrete, structural analysis in AxisVM, detailing in Tekla Structures and AutoCAD.
- Technical consultant at Wienerberger covering western Hungary - 100+ trainings and presentations a year, plus R&D in energy-efficient masonry structures.

EDUCATION

MSc, Structural Engineering - University of Pécs (2011–2013)

BSc, Civil Engineering - Széchenyi István University, Győr (2005–2010)

HONORS & DISTINCTIONS

- World Champion, Spaghetti Bridge Building (Canada, 2008 & 2009) - set a world record.
- AxisVM Diploma Award; SZÉTV National Competition, 1st place; Klatsmányi-Varga Scholarship (2006, 2008, 2009).
- Speaker, Fuckup Nights (2019, 2020) - the Exelean post-mortem

LANGUAGES

Hungarian (native)

English (professional working)