

Reza Dadashian

Senior Software Engineer / Platform Engineer — Backend, Infrastructure & Distributed Systems

Open to remote or relocation

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SUMMARY

Senior software engineer with 15+ years of building and running web products end to end — the database, the servers, and the UI on top of them. I lead engineering at MeNEW, Iran's largest digital menu platform, where I cut infrastructure cost nearly in half while the platform grew 40%, and made the parts of the product that were slow several times faster. Most of my work over the last five years has been with teams in the US, Canada and the UK, all remote, and I am able to relocate.

I like owning a system from the architecture down to the deployment: Django and GraphQL backends, Next.js frontends, PostgreSQL and Redis underneath, and the Linux machines they all run on. Alongside that I work on immersive and AI systems — Gaussian Splatting and GLB pipelines, LLM and TTS/STT integrations, GPU infrastructure. I started out with static sites and WordPress, and the habit of taking things apart to make them faster never left.

TECHNICAL SKILLS

Frontend React, Next.js (App Router), TypeScript, Vue.js, Tailwind, TanStack Query, Zustand, SCSS, Storybook

Backend Python (Django, DRF), Graphene GraphQL, Celery, REST, PHP / WordPress plugins, DDD

Data & caching PostgreSQL (replication, PgBouncer), TimescaleDB, Redis, MySQL, S3-compatible storage

DevOps Docker, Linux server management, NGINX, Git CI/CD, CDN, Sentry, Grafana / Prometheus, Portainer, MinIO, CSF, cPanel/WHM, CUDA & GPU infrastructure

AI & 3D OpenAI (Responses API, Assistants, Whisper), PyTorch, ElevenLabs TTS, Azure STT, PlayCanvas, Three.js, Gaussian Splatting, <model-viewer>, Blender, ComfyUI

Also familiar with Kubernetes, Node.js, React Native, AWS, MongoDB, Selenium, Jest, Pandas / NumPy

EXPERIENCE



Co-Founder → Tech Lead & DevOps — [MeNEW](#) (Digital Menu Platform, Remote)

Jun 2017 – Nov 2020 • May 2025 – Present

I co-founded MeNEW in 2017 and built its first version, then came back to lead it technically. It is now Iran's leading digital menu platform: ~700 active venues on a multi-tenant Django / Next.js SaaS. I lead a team of four engineers and own the architecture, the infrastructure and the cost of running it. The stack is Django 5.2, Graphene GraphQL, Celery, PostgreSQL, TimescaleDB and Redis behind React 19 / Next.js 15.



INFRASTRUCTURE & COST

- Cut total infrastructure cost — servers, database, CDN and S3 — from ~\$1,500 to ~\$800 a month while active venues grew from ~500 to ~700 — and spent the savings on redundancy instead of pocketing all of it: one active plus one passive server with PostgreSQL replication, and a fully independent backup stack (its own domain, CDN and server) so it is close to impossible for both to go down at once.

- **Reduced database writes by 80%** (400 → 80 commits/s at peak) by only touching a visit's updated_at when it actually changes and bundling related updates into single atomic transactions.
- **Reduced database queries by ~50%** at peak by skipping middleware that was redundant on the main domain — we take traffic from *.menew.ir plus two shortener domains, and every request was being checked for a shortener redirect. The database went from 2x4 cores at ~500 venues to under 2x0.5 cores at ~700.
- Resolved a **PgBouncer connection-exhaustion outage** with concurrency limits and refusal caching; fixed Celery client memory leaks, tuned uvicorn worker recycling, and reworked the Dockerfiles for three services (internal package mirrors, pinned Poetry, non-root users).
- Built **static menu fallbacks for a total outage**: the HTML/CSS of every active venue is generated and published to a separate emergency domain (meneuu.com/{venue}) on its own CDN and server, reachable through an emergency QR code the owner gets in their panel.

PERFORMANCE

- Designed the **GraphQL response-caching layer on Redis** — stale-while-revalidate, lock-based stampede protection, entity-scoped invalidation and forced refresh — and mentored the team through it. The backend went from up to 8 nodes at ~300% CPU down to 2 nodes at ~200%; TTFB is roughly 3x faster and a full menu load about 10x faster.
- Diagnosed and fixed a cache-key poisoning bug where responses were being keyed by operation name only.
- Rebuilt image delivery end to end: an **S3 image optimizer** with in-process and Redis caching, HEIC support, client-side computed CDN URLs and parallel pre-warming of variants. CDN cache hit rate is now 70%+, and users effectively never see the blurhash placeholder before the real media arrives.
- **Took the panel's menu editor from ~20 FPS to 120 FPS** on the same machine without dropping a single feature or styling option (memoized board rendering), and did a mobile pass on the guest catalogue with clipped progressive blur, cached blurhash and off-screen video pause.

PRODUCT & ARCHITECTURE

- Led the redesign of the multi-tenant admin panel (Next.js, React, TypeScript, Tailwind v4): 20+ settings and dashboard pages rebuilt on one design system with container-query responsive layouts.
- Migrated the customer-facing menu app from Pages Router to App Router with next-intl, SSR, slug-based routing, dynamic sitemap/robots, SEO metadata and runtime theme generation — keeping 6+ languages and RTL intact.
- Re-architected subscription and billing: inventory/possession model, renewal / upgrade / downgrade dating rules, credit-rollover quoting, and a split between invoice bookkeeping and provisioning that stopped paid invoices from silently failing to deliver — those failures are gone.
- Split guest analytics into a dedicated TimescaleDB database, with campaign-source attribution, session lifecycle handling and a category-attention ranking query.
- Owned the AI translation pipeline (MeNEW-AI-Translation): migrated from the OpenAI Assistants API to the Responses API, added per-language progress tracking, a stuck-pass recovery/resume flow, and a language-quota entitlement model that replaced a legacy feature ladder. Translating a full menu is now about 3x faster.
- Built a kanban-style drag-and-drop Menu Builder (dnd-kit) to replace the legacy editor, with right-click actions, inline price/featured capture and per-category display modes.
- Led the Ordering feature (online payments + order management) and designed the full onboarding automation, from registration to a published menu.

EARLY DAYS (2017 - 2020)

- Built the first product — a PHP/Laravel prototype with a customer panel for editing menu items and branding — in vanilla JavaScript with jQuery/AJAX, using CSS3 transforms instead of left/top to keep CPU usage down, which was an unusual choice in our market at the time.
- Wrote a Windows service that ran on the client's machine and exposed any connected printer (thermal printers in the kitchen, for example) so orders could be printed where they were actually needed.

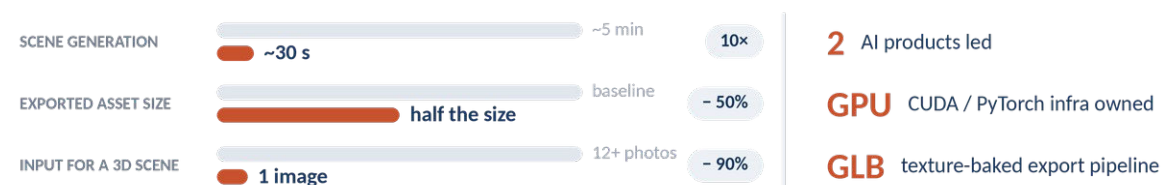
Public: menew.ir · brand.menew.ir



Technical Consultant — [Imersual Ltd](#) (Remote — UK)

Dec 2025 – Present

AI-powered immersive and creative platforms: 3D environment generation, storyboard automation and cinematic pre-production.



- Lead development of **BeeStoon AI**, a platform that turns a single image into an explorable 3D environment using Gaussian Splatting, mesh reconstruction and immersive web technologies. **Scene generation went from ~5 minutes to ~30 seconds on the same RTX-5090 hardware**, with exported assets about half the size, through post-processing and pipeline optimization.

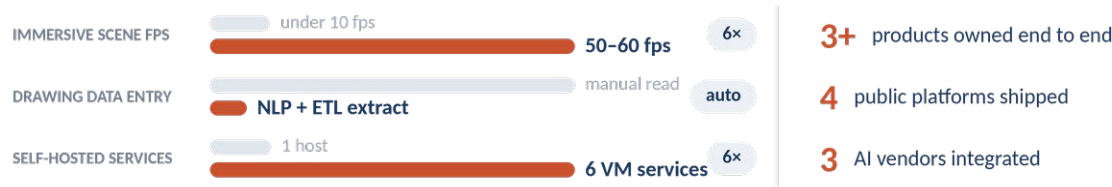
- Built and optimized pipelines around modern AI/3D research repositories including Facebook Research SAM-3D-Objects, producing texture-baked GLB exports and production-ready asset generation.
- Configured GPU-based AI infrastructure on Linux with CUDA, PyTorch, Mamba and Docker, and improved rendering quality through low-level debugging of CUDA environments, rasterization pipelines, texture baking and mesh optimization.
- Built **Storyboard Studio**, a web storyboard platform with drag-and-drop scene composition, sequencing, animatic workflows, asset libraries, shot configuration and production breakdowns.
- Generated storyboard cards with open-source VLM and image-generation models on ComfyUI, with structured scene metadata, reference media and narrative flow, and contributed to product strategy, technical roadmap and MVP validation alongside UK academic and innovation programmes.

Public: [beestoon.ai](#) · [usejodo.com](#) (both run on on-demand GPU servers, so they may be idle when you check them)



Lead Software Engineer — [Airdec Inc.](#) / [OZure](#) (Remote — Virginia, USA)
 Mar 2023 – May 2025

Core backend and frontend systems for immersive AI-driven platforms and internal business applications.

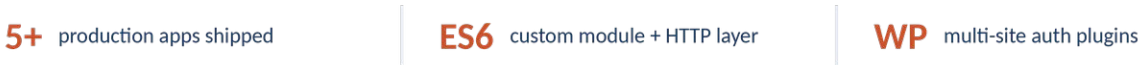


- Product owner for 3+ of the company's applications, from requirements through to release.
- Built the AI Immersive Platform: multilingual voice commands, LLM-powered avatars and real-time 3D scene teleportation in PlayCanvas — and **took the immersive scenes from under 10 FPS to a steady 50-60 FPS** through draw-call reduction, asset compression and mesh optimization.
- Implemented an NLP + ETL pipeline over technical drawings to auto-extract project name, address, architect and engineer instead of reading them by hand.
- Ran a home-based Proxmox dedicated server with VMs for a Qdrant vector database, Helix Perforce Core for 3D asset sharing, NextCloud, a cPanel staging environment, a Linux backup server and a GitLab server.
- Integrated OpenAI (LLMs, Whisper), ElevenLabs (TTS/STT) and Microsoft Azure Face API, and built the VirtualMe avatar platform with Next.js, React Three Fiber and audio processing, plus a small ERP for TAB companies (sales, accounting, test sheets, reports, financial management).
- Maintained shared authentication between Django DRF and WordPress plugins, and chose GraphQL or REST per project depending on the job (file uploads vs. data queries).

Public: [ozure.ai](#) · [bazaar.ozure.ai](#) · [immersive.shah.farm](#) · [tabtechinc.com](#)



Senior Frontend Developer — [Reev Tech Inc.](#) (Remote — Toronto, Canada)
 Jan 2021 – Jan 2023



- Launched 5+ production Vue.js / vanilla JS applications.
- Built custom WordPress plugins, including multi-site authentication and Mailchimp integrations.
- Wrote a highly optimized ES6 module system with a custom HTTP abstraction layer, plus localStorage-based guest activity tracking, a responsive Google Ads loader and a custom audio player with text-following.

Public: [estimator.reev.dev](#) · [web.litguide.ca](#) · [launchpad.cashewlife.com](#) · [citizenshipapp.ca](#)

Freelance Developer & Self-Learning 2011 – 2016 — built websites for a range of clients and taught myself the full stack along the way.

EDUCATION, CERTIFICATIONS & INTERESTS

MSc, Computer Engineering — Iran Industries Research Higher Education Institute

BSc, Computer Software Engineering — Qazvin Azad University

Certifications CS50x, Harvard (Oct 2024) · UX Design, Rimia Co.

Interests Performance tuning — whether it's a car or a website · Gaming and racing simulators · Learning new languages and tools