

BARAN DURAK

SENIOR FULLSTACK / SYSTEMS ENGINEER

CONTACT & LINKS

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PROFESSIONAL SUMMARY

Senior Fullstack & Systems Engineer with 8+ years of experience architecting, designing, and delivering complex, production-grade systems across manufacturing, machine learning, trade & customs, childcare SaaS, and blockchain domains.

Specialized in high-performance browser applications, fullstack system architecture, manufacturing automation, backend platforms, and large-scale product design.

Strong communicator, mentor, and technical leader experienced in guiding teams, rewriting legacy systems, and shipping mission-critical products end-to-end.

CORE SKILLS

Languages & Paradigms: TypeScript, JavaScript, Python, C/C++, Solidity, SQL, NoSQL, FP & reactive patterns

Frontend: React, React Native, Next.js, Vite, Webpack, Vue, SolidJS, Flutter, GLSL shaders, Three.js

Backend & Architecture: Node.js, NestJS, Express, TRPC, GraphQL, REST, microservices, event-driven systems

Systems & Performance: WebAssembly, rendering pipelines, binary parsers, compiler-like workflows, WASM/C++ bindings

Infrastructure & DevOps: Docker, Podman, CI/CD, Linux, Git, Redis, PostgreSQL, Firebase

Design & Product: Figma, Illustrator, InDesign, After Effects, product prototyping & UX flows

WORK EXPERIENCE

Senior Software Engineer | 2025 June -

DANNIE CC Electronics | dannie.cc

- Architected from scratch a high-precision browser-native Gerber Viewer, achieving industry-leading accuracy comparable to Altium and outperforming all competitors in the online visualization space. <https://dannie.cc/gerber-viewer>
- Designed and implemented a high-performance DFM (Design for Manufacturability) engine running entirely inside the browser using TypeScript + C++ WebAssembly, becoming one of the fastest DFM solutions in the market.
- Built a standalone Gerber parsing, rendering & analysis library, forming a core competitive advantage and powering quoting, engineering review, and automation flows.
- Led and mentored a team of 3 engineers to build a full PCB ordering platform, including spec configuration, advanced panelization tools, reviewer dashboards, file pipelines, and order-to-delivery workflows.
- Implemented a wallet & partial payment system and integrated multiple payment providers (PayTR, Stripe, Airwallex) with secure balance handling, refunds, and settlements.
- Reverse-engineered pricing logic across multiple PCB manufacturers to develop a competitive, parameter-based pricing engine, significantly improving quotation accuracy and customer acquisition.
- Engineered a modular, scalable NestJS backend architecture, supporting quoting pipelines, job orchestration, customer data flows, authentication, file management, and order-event systems.
- Presented demos and prototypes at Productronica and other conventions, directly contributing to business development and onboarding of new B2B clients.

Lead Software Engineer | 2025 January - 2025 June

GTC Solar Systems

- Leveraged software development expertise and machine learning techniques to optimize and automate key business workflows, resulting in increased efficiency and productivity.
- Architected and implemented software solutions and process flows to address internal company challenges and improve operational effectiveness.
- Proactively trained and mentored colleagues on the application of AI tools for daily tasks, fostering a more technologically proficient workforce.
- Conducted technical meetings and collaborated with external providers to drive technological advancements and enhance service quality.

Software Engineer & Product Designer | 2022 - 2025

TAZI AI Systems | tazi.ai

- Developed robust product designs for clients across the insurance, finance, consulting, and technology industries.
- Designed and implemented user interfaces to expand the TAZI product's machine learning capabilities by:
 - Integrating client workflows into existing processes
 - Adding Generative AI solutions to complement current ML offerings
 - Incorporating new algorithms, features, and flows into existing ML solutions
- Planned and led a complete rewrite of a six-year-old React codebase.

Lead Software Engineer | 2020 - 2023

Digital Childcare | app.mydigitalchildcare.com

- Solely architected, designed, and built a production-grade SaaS platform for preschool and childcare management—web, iOS, and Android—from concept to launch.
- Delivered a scalable multi-tenant system including attendance, payments, parent communication, scheduling, student profiles, reporting, and more.
- Implemented front-end architecture and contributed significantly to backend flows for data management and staff tools.
- Shipped a polished, modern UX used by educators, administrators, and parents across multiple schools.

Software Engineer | 2020 - 2022

ATEZ Software Technologies

- Designed and implemented the front-end for a comprehensive agreement/contract solution that supports generation, negotiation, signing, management, and tracking from inception to deployment.
- Led the front-end development for a blockchain-based platform that transfers import and export processes to a secure, trackable infrastructure.
- Conducted 50+ hours of teaching and mentorship in technology development and best practices as part of an intern program.

Information Technology Manager & Software Developer | 2018 - 2020

Integrity Partners Consultancy Group

- Designed, implemented, and maintained websites and applications for a diverse range of clients and for internal company use.
- Set up and managed the company's information technology systems and workflows to optimize operations.

ACADEMIC HISTORY

Beykent University | 2016-2021

Bachelor of Science in Computer Engineering

Dr. İlhami Tankut Anatolian Highschool | 2012-2016

- President of Computer and Cinema Society