

I'm Deniz, a Software Engineer from Portugal, currently pursuing a Master's degree in Computer Science in Denmark. I have a strong foundation in full-stack development, built through several projects spanning frontend, backend, and infrastructure. More recently, my interests have shifted toward lower-level and resource-constrained systems — edge computing, edge AI, and self-hosted infrastructure — areas where software meets hardware constraints.

EDUCATION

Master of Science in Computer Science and Engineering, <i>Technical University of Denmark</i>	Expected Jul 2028
Bachelor in Informatics and Computing Engineering, <i>Faculdade de Engenharia da Universidade do Porto</i>	Jul 2026
Highschool Diploma, <i>Grande Colégio Universal</i>	Jun 2022

SKILLS

Programming Languages	TypeScript, C++, Python, Java, Rust
Frameworks & Tools	React, Next.js, Tauri, MongoDB, PostgreSQL, Git, Docker, Clouflare, Vercel, Kafka, Nest.js, Hono, Elysia
Communication	Portuguese (Native), English (Cambridge C1), Turkish (Spoken)

TECHNICAL EXPERIENCE

Curricular Internship / AI Based Compilation for CGRA's <i>INESC TEC</i>	Feb 2026 — Jul 2026 <i>Porto, Portugal</i>
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- Research position at **INESC TEC**, working on project AIMACOV.
- Developed a GNN-Guided partitioning algorithm combined with SAT solving, to map DFGs onto CGRAS.
- Reduced mapping times by $\approx 50\%$, compared to exhaustive search methods.
- Improved partitioning quality by $\approx 33\%$, compared to unguided approaches.
- Published a paper on the proposed methodology in INForum 2026 as first author - **GNN-Guided Graph Partitioning for Spatial CGRA Mapping**.

Co-founder & Full-stack Software Engineer <i>Ocean Informatix</i>	Jan 2024 — Jan 2026 <i>Porto, Portugal</i>
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- Led end-to-end development of custom software and web solutions as the sole engineer, owning architecture, implementation, deployment, and maintenance.
- Collaborated directly with clients to understand business needs, translate them into technical requirements, and iterate quickly based on feedback.
- Designed and implemented solutions across multiple tech stacks, adapting to each client's preferred frameworks, environments, and constraints.

Alojamento Ideal <i>https://alojamentoideal.pt</i>	Jun 2025 — Sep 2025 <i>https://github.com/denizlg24/alojamentoideal</i>
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- Designed and implemented a full-stack web app for property and activity booking and travel management using **Next.js 15**.
- Implemented a dynamic booking system with real-time availability updates integrated with the **Hostify** property management system, **Hostkit.pt** for invoicing and border control and **Bokun** for activities.
- Integrated payments with **Stripe** for secure payments and reliability.
- Deployed on **Vercel**, and using **MongoDB** for data storage.

Shortn.at <i>https://shortn.at</i>	Jun. 2023 — Feb. 2024 (V1) May 2025 — Jan 2026 (V2) <i>https://github.com/denizlg24/shortn_v2</i>
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- Shortn.at was my first full stack project. It started as a personal project but managed to retain some customers.
- As of Jan. 2026, I published V2 of Shortn and am now maintaining it and posting regular updates
- Version 2 was a complete rewrite of the project, due to a bigger volume of clients and new needs, and because there were now many new technologies
- Version 2 is built on **Next.js 16**, with the new **React Compiler**. The database selection was kept although I followed better principles thus increasing efficiency
- Version 2 had a full **CI/CD** pipeline with GitHub actions and is iterated using Agile Methodologies, with Sentry for error monitoring.

ACTIVITIES

Handball Player National U19 Handball Team Goalkeeper <i>Represented Portugal in the national team of U19 Handball, to a 6th place finish in the U19 World Championship.</i>	2019 — 2024 Summer 2019
American Football Player — Schwabisch Hall Unicorns <i>At 20 years old, and after changing to American Football, I embraced the challenge of living independently in Germany. I celebrated a significant achievement by winning the German American Football South Division as part of the team.</i>	Summer 2024