

ABDULRAHMAN HAMDİ

Computer Engineer | MSc Student at Gebze Technical University

PROFESSIONAL SUMMARY

Multidisciplinary Software & AI Engineer specializing in building scalable Full-Stack applications and deploying Deep Learning models into production. Ranked 1st in Computer Engineering. Proven expertise in developing robust backends (Node.js, Next.js, Django, PHP) and integrating AI solutions (Computer Vision, Recommendation Systems) to deliver high-performance, data-driven digital products. Passionate about system architecture, code maintainability, and real-world impact.

TECHNICAL SKILLS

- **Programming Languages:** TypeScript, JavaScript (ES6+), Python, PHP, C#, Java, C/C++
- **Frontend & Full-Stack:** Next.js, React.js, Node.js, HTML5/CSS3, Tailwind/Bootstrap
- **Backend & Web Tools:** Django, FastAPI, ASP.NET, Laravel, WordPress (Custom Theme Architecture), Docker, Git
- **AI & Machine Learning:** TensorFlow, PyTorch, Scikit-Learn, MONAI, Computer Vision (CNN, GAN, YOLO)
- **Databases:** PostgreSQL, MySQL, Vector Databases, Firebase

PROFESSIONAL EXPERIENCE

FULL-STACK DEVELOPER | JEFE DE JEFES | Hybrid 12 / 2025 – 04 / 2026
Istanbul, Turkey

- Developed and maintained robust web applications, most notably the *rezzgo.com* platform, leveraging a modern TypeScript ecosystem.
- Built highly responsive and performant user interfaces using Next.js, utilizing Server-Side Rendering (SSR) and Static Site Generation (SSG) to optimize SEO and initial load times.
- Engineered scalable backend services and APIs using Node.js, ensuring seamless data integration and high availability for end-users.

AI & Software Engineering Intern | Semruk Yazılım Teknoloji | Sivas, Turkey
09/2025 – 10/2025

- Developed 3D medical image segmentation pipelines using Swin UNETR and MONAI with transfer learning.
- Built automated analysis workflows for organ volume, centroid, bounding box, and shape metrics.
- Designed interactive 3D visualization tools using Plotly and Marching Cubes.

Web Developer | darksn | Remote 11 / 2025 – 01 / 2026 (3 Months)

- Engineered a high-performance, custom WordPress theme from scratch for digital agencies, prioritizing SEO readiness and maintainability.
- Developed a custom slug-based PHP router and a conditional asset pipeline (filemtime() versioning), which dynamically loaded CSS/JS per page to eliminate render-blocking resources.
- Implemented fully accessible, semantic HTML5 layouts adhering to strict ARIA standards and Schema.org markup.

AI Intern | Sivas Cumhuriyet University | Sivas, Turkey 07/2025 – 09/2025

- Built and trained GAN/WGAN/CNN models for image generation and classification using PyTorch and TensorFlow.
- Implemented core optimization algorithms (backpropagation, gradient descent) with NumPy.

**TEACHING
EXPERIENCE**

Technical Instructor & Algorithm Mentor | Cumhuriyet University / Private Institutes | Sivas, Turkey 2015-2025

- Taught Math 1&2, Linear Algebra, Probability and Statistics, Differential equations and Algorithm Analysis.
- Delivered YÖS preparation courses and lectures for university-level students.
- Developed logic and problem-solving courses for programming learners.

EDUCATION

Gebze Technical University, Gebze, Turkey
Master of Science, Computer Engineering, Expected in 10/2028

Sivas Cumhuriyet University, Sivas, Turkey
Bachelor's Degree, Computer Engineering, 10/2025

- Ranked 1st in the department (Top of Class)

**HIGHLIGHT
PROJECTS**

Summer Schools & University Management Platform (Full-Stack SaaS)

- Engineered a scalable monorepo architecture using **Next.js 16 (App Router)** and **React 19**, delivering a high-performance multilingual gateway (TR/EN/AR) with full RTL support.
- Implemented a secure, role-based access control system (Admin/Editor) via **NextAuth**, managing complex data relations through **Prisma ORM** and a serverless **PostgreSQL** database.
- Optimized web vitals and search visibility by developing a dynamic SEO engine generating localized metadata, sitemaps, and hreflang alternates.

Student Elective Course Recommendation System (Graduation Project)

- Built a comprehensive full-stack student portal (OBS) using **Django** and **PostgreSQL**, featuring three isolated role-based dashboards (Student, Academic, Admin).
- Developed and integrated an Item-Based Collaborative Filtering recommendation engine utilizing **Scikit-Learn** (Cosine Similarity) to deliver highly personalized elective course suggestions.
- Architected advanced platform features including real-time live classes via **WebRTC**, asynchronous push notifications via **Firebase**, and dynamic GPA tracking.

Real-Time Fire & Smoke Detection System (YOLOv11 & Deep Learning)

- Developed a robust real-time computer vision system for industrial safety monitoring using **YOLOv11**, outperforming traditional sensor-based limitations.
- Trained and optimized the model on a large-scale dataset of 21,500+ images using **PyTorch**, achieving a high inference speed of 50+ FPS.
- Reached an impressive **mAP@0.5 of 0.606** and an **F1 score of 0.61**, utilizing anchor-free detection and DFL loss for superior bounding box precision.

LANGUAGES

Arabic: Native
English: B2 (Professional Working Proficiency)
Turkish: C1 (Fluent)