

Muhammed Maksut Çakmaktaş

Computer Engineer · Software Development and Cybersecurity

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SUMMARY

Computer engineer, graduated January 2026. I have delivered a paid client engagement that measurably sped up and hardened a live education platform, a trilingual production website, an open-source tool with 607 tests, and a signal-processing engine with a measured false-alarm rate. The rule I work by does not bend: I do not call anything "working" until it is measured — when one of my models failed to beat the market, I did not ship the screen it was built for.

CLIENT WORK

Freelance Developer / Technical Consultant

August 2026 – present

Optimist Akademi (online education platform) · Istanbul · remote

First paying corporate client. Speed, infrastructure, security and management tooling for a live WordPress / BuddyBoss / LearnDash education platform.

- Raised mobile PageSpeed from 28 to 58 and desktop from 39 to 88 (each figure the median of three separate runs) by converting the video payload that was bloating the homepage into a click-to-play cover system and cutting CSS files from 68 to 7.
- Cut homepage weight from ~14 MB to ~2 MB, with a measured 1,274 KB (–74%) saving on a course page; found and fixed the root cause of the cumulative layout shift (a duplicate font declaration), taking the homepage bundle from 746 KB to 593 KB.
- Installed every interface change as a test-mode code snippet revertible in seconds by a single switch; the live system passed visitor-eye verification 11 times out of 11.
- Hardened the server by locking the admin panel to three IPs and adding a WAF challenge rule, a PHP-FPM worker ceiling (250 → 8-20) and a request timeout limit (7,200 s → 300 s); this closed off the 74,526 blocked attack attempts sitting in the logs and neutralised an active credential-hunting bot making 892 requests in three minutes.
- Lifted email deliverability from 5.6 to 8.7/10 (mail-tester) — every message from the site had been landing in spam — by fixing the authentication records and re-establishing delivery through Amazon SES.
- Shipped a bespoke logbook plugin (v1.1.0) the client now uses daily, and built the measurement layer with GA4, Google Tag Manager and Search Console; the product-view event was verified in the real-time report and the sitemap was reduced from ~755 URLs to 237.
- Shipped a consent-compliant cookie notice at a cost of +1.9 KB gzipped and zero additional files.
- Built the skeleton of an AI advisor engine that generates a knowledge base from the site's own content and answers strictly from it: 116 chunks out of 86 sources, 70 tests passing, and the correct page found on eight out of eight Turkish control questions.

EXPERIENCE

Cybersecurity Intern

July – August 2025 · 20 working days

Cyber4 Intelligence Bilişim A.Ş. · Ankara, Türkiye

- Ran the full reconnaissance → vulnerability scan → exploitation → reporting cycle across 20 working days on Kali Linux using Nmap, Metasploit, Wireshark and Bettercap; the programme is documented by a company-sealed internship report with a day-by-day attendance sheet.
- Solved Hack The Box CTF scenarios to practise those tools in a controlled, authorised lab.

SAP PI/PO Integration Intern

August – September 2025

Negzel Technology · Istanbul, Türkiye

- Studied data flows between enterprise systems (IDoc, ICO) on SAP PI/PO and gave technical support on integration tasks, learning first-hand how an enterprise integration layer is operated end to end.

IT Support

January – June 2025 · 6 months

İŞKUR — IT Department

- Provided first-line support for internal hardware, software and basic network faults over six months, running routine maintenance and troubleshooting independently.

SELECTED PROJECTS

maksutcakmaktas.com — personal portfolio

Next.js 16 · React 19 · TypeScript · Tailwind 4

- Built a trilingual personal site single-handed, each language on its own indexable route: 151 source files, 96 components, 89/89 tests green.
- Passed an external security assessment with no critical and no high findings, using a nonce-based content security policy, browser permissions switched off, and a hidden admin surface behind a signed session.
- Diagnosed why the site locked up on Mac: the device-hint-based low-performance escape hatch could never fire on WebKit, which left 37 mitigation rules as dead code. Replaced it with frame-rate-based detection plus a WebKit-specific layer reduction, bringing down the ~284 MB of composited layer memory Retina was carrying.

All Eye — terminal mentor

Open source · Python

- Wrote a local mentor tool that detects the moment you get stuck from terminal history without calling a language model, with zero third-party runtime dependencies; 607 tests pass in ~11 seconds and 69 of 72 mutation tests came back red, proving the suite actually protects the code.
- Cut chunk latency in the answer window from 1,094 ms to 0 ms; tier-1 response measured at 1.5 s and the console-less daemon at ~31 MB. Everything bound for the cloud passes through a secret redactor verified against 14 real command lines.

AI copyright similarity engine

R&D for a music rights society · Python · DSP/MIR

- Developed a five-layer similarity engine that recognises a musical work from a raw recording, a cover or a hummed melody: across a catalogue of 1,808 works and 216,057,476 hashes, the false-alarm rate over 20,000 unrelated pairs measured 0.015%.
- Achieved 7/7 correct matches across seven degradation variants and 89/90 on a 90-track collage sweep; thresholds were calibrated by measurement, and the engine was deliberately framed to produce candidates rather than verdicts — a human expert makes the final call.

Miri Parsel — urban renewal pre-assessment tool

Live · TypeScript · React · Electron · Chrome MV3

- Shipped the calculation chain from deed area to poster copy from one codebase across three channels (PWA on the phone, Windows install, browser extension); 83/83 tests green and all 15 defects raised by an adversarial code review from three angles were closed.

TECHNICAL SKILLS

USED IN PRODUCTION

Languages: Python · TypeScript / JavaScript · Rust (Tauri) · PHP (WordPress operations) · SQL

Web and UI: Next.js 16 · React 19 · Tailwind CSS 4 · Framer Motion · Vite · Electron

Artificial intelligence: Claude API · Gemini / Groq / Ollama · RAG / knowledge-base generation · multi-provider failover

Infrastructure and operations: nginx · CloudPanel / Plesk · Cloudflare · Vercel · Redis · SQLite / PostgreSQL (Supabase)

Quality: Vitest · pytest · mutation testing · accessibility (WCAG) · Lighthouse / PageSpeed measurement discipline

Signal processing: librosa · Demucs · basic-pitch · hnswlib / faiss

COURSEWORK / INTERNSHIP LEVEL

Security tooling: Kali Linux · Nmap · Metasploit · Wireshark · Bettercap · Hack The Box

Enterprise: SAP PI/PO · IDoc · ICO · ISO 27001 · GDPR / KVKK

Other: C · C++ · C# · MATLAB · Unity 2D/2.5D (course project) · Arduino · Raspberry Pi · Swift · Kotlin

EDUCATION

BSc Computer Engineering

2021 – January 2026

Osmaniye Korkut Ata University

Final project: image classification by training GoogleNet with the MATLAB Deep Learning Toolbox.

CERTIFICATION AND LEARNING

- Udemy Cybersecurity course — completed (2026)
- TryHackMe Jr Penetration Tester Path — in progress
- eJPT (eLearnSecurity Junior Penetration Tester) — preparing for the exam

LANGUAGES

Turkish — native · English — professional working proficiency

Every figure in this CV comes from a project record and its source can be shown on request.