

# Muhammed Maksut Çakmaktaş

AI and Automation Engineer · LLM Integration · Data Pipelines

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## SUMMARY

Computer engineer running language models in production at a measured cost, inside an architecture that closes the door on fabrication. In the pipelines I build, factual fields are printed by code and the model only writes prose — inventing a number is architecturally impossible. I have built a RAG engine that generates a knowledge base from 86 sources for an education platform, a daily publishing line live to real subscribers, and a lead system running around the clock at \$3-6 a month.

## 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.

- 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.
- 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.

## SELECTED PROJECTS

### Daily AI discovery letter

Live · Python · Claude API · Telegram

- Built and shipped to real subscribers a publishing line that sweeps nine sources each morning and boils the day down to six discoveries (production run: 72 candidates → 57 fresh → 28 finalists → 6 winners), at a measured cost of \$2.80 per 12 letters.
- Made it architecturally impossible for the model to invent a number by printing facts such as star counts, licence, price and install command from measured data in code — the model only writes prose.

### Freelance Hunter — lead engine

Python · Next.js · DuckDB · Claude API

- Built a two-armed engine running job-posting sweeps and business-site audits around the clock: 636 sites audited out of 8,595 candidates, 443 dropped, 193 warm leads kept; independent verification confirmed 18 of 18 and 28 of 28 claims, at a measured running cost of \$3-6 a month.
- Made ban safety an architectural rule: nothing is scraped through a platform account, only official APIs and public routes are used, and a human always sends the message.

### 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.

### Match probability panel

Live · Next.js 16 · Supabase · Vercel Cron

- Built a 230,557-match data pipeline with zero parse errors, then measured in a 13,775-match blind test that my own probability model trailed the market (Brier 0.5934 vs 0.5784) — and did not ship the screen it was meant to feed. The one model that came out positive (first half) showed 0.66% calibration error over 13,774 matches.

## EXPERIENCE

### 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.

### 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.

İŞKUR — IT Department

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

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**

Osmaniye Korkut Ata University

2021 – January 2026

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.