TALHA ÇAĞLAR

AI / LLM Application Developer · Python · FastAPI

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PROFILE

Final-year Computer Engineering student building LLM applications with Python and FastAPI; expected graduation June 2027. Uses structured outputs, Pydantic validation and multi-provider integrations in projects. Experience across enterprise software, web security and IT infrastructure through three internships. Four open-source apps are packaged on the AUR.

AI PROJECTS

Akıllı Ekstre (Bank Statement Analyzer) · *Python, FastAPI, Pydantic, OpenAI API, Next.js* — Private repository

- Kept bank-statement calculations in deterministic services and restricted the optional LLM layer to selecting explanations from an approved catalog.
- Blocked responses that fail Structured Outputs and Pydantic validation from reaching users or the cache; limited the fields sent to the provider so that names, IBANs and transaction text stay out.

Short Video Automation · *Python, Gemini, Claude, OpenRouter, faster-whisper, FFmpeg* — Private repository

- Built two workflows: generating narrated, captioned vertical videos from a topic, and extracting short clips from longer videos through transcript-based LLM selection.
- Unified three LLM providers behind a shared interface; video rendering waits for a second LLM to review the script's claims and for a person to approve it.

Lexis · *Python, PyQt6, Gemini, SQLite* — Open source · github.com/talhacaglar/Lexis

- Dictionary app that stores words and review history in local SQLite; optional Gemini help gets only the looked-up word, and its answers pass Pydantic schema validation. SM-2 spaced repetition; on the AUR as lexis-git.

ClarSec · *Python, Typer, Pydantic, httpx, pytest* — In development, not yet published

- Terminal assistant that parses saved Nmap output deterministically and produces rule-based findings; optional LLM analysis passes typed JSON validation and exact evidence matching, and falls back to the rules on provider errors.

Other projects: Notion Dictionary Automation (Gemini API); packaged on the AUR: Omarchy Focus, Pritingo, ceviribro.

EXPERIENCE

PTT KULE A.Ş. · *IT Intern · Çamlıca Tower, İstanbul* — Aug 2026 – Sep 2026

- Helped troubleshoot faults across the IT infrastructure; resolved connectivity issues for VLAN/PoE IP cameras.

İşbir Sentetik Dokuma Sanayi A.Ş. · *IT Intern · Balıkesir* — Jul 2026 – Aug 2026

- Built PrintHub, a printer and toner management application (Electron, Express, SQLite), with SNMP device discovery, Active Directory/LDAP integration, role-based access control and audit logging.

EMA Security LTD · *Cyber Security Intern (Red Team) · Remote* — Oct 2025 – Mar 2026

- Performed authorized web security testing and OWASP Top 10 vulnerability analysis; validated and reported findings.

EDUCATION

Sakarya University of Applied Sciences · *B.Sc. in Computer Engineering* — Oct 2023 – Jun 2027 (Expected)

TECHNICAL SKILLS

LLM & AI	Claude, OpenAI, Gemini APIs; Structured Outputs, Pydantic, prompt engineering and evaluation
Software	Python (FastAPI, PyQt6), TypeScript (Next.js), JavaScript (Electron), C++ (Qt), SQLite, pytest, Git
AI Coding Agents	Claude Code, Codex (daily use); custom hooks, skills and MCP; persistent-memory setup (ClarchOS)
Linux & Network	Arch Linux, Bash, AUR packaging, TCP/IP, VLAN, DNS/DHCP, SNMP, LDAP/Active Directory
Security	OWASP Top 10, web application testing, vulnerability analysis · Burp Suite, Nmap, Wireshark
Languages	Turkish (native), English (B2)

CERTIFICATIONS & ACHIEVEMENTS

Building with the Claude API · Claude Academy (Anthropic) · 0eb94a29031810ca89a439666dd7465b — Nov 2026

Türkiye Siber Vatan Program 2026 · Certificate of Participation — Mar 2026

CWSE — Certified Web Security Expert · Hackviser · HV-CWSE-ZNKC7QAY — Feb 2026

CAPT — Certified Associate Penetration Tester · Hackviser · HV-CAPT-2U0W5XSE — Oct 2025

Networking Basics · Cisco Networking Academy · Certificate of Completion — Aug 2025

Deep Learning for Image Processing · Dijital Genç AI Ecosystem · Achievement & Participation Certificates — Oct 2024

Machine Learning · Dijital Genç AI Ecosystem · Achievement & Participation Certificates — Oct 2024

TEKNOFEST 2024 Robolig Competition (University level) — Finalist · Team AllSpark · interface design — Oct 2024