UMUT ABALI

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EXPERIENCE

Rems Logistic *Istanbul,TR*
Software Developer *Jul 2026 –Present*

- Maintain and extend the company's production logistics platform, shipping features and bug fixes driven by daily warehouse and field operations.
- Build and release iOS and Android apps with React Native, keeping feature parity with the core platform for warehouse and field teams.
- Developed an XGBoost price-prediction model trained on 12 months (35K records) of shipment data to support faster, data-driven pricing decisions.
- Automated document processing with an AI-based extraction workflow, reducing manual data entry by 75%.
- Work directly with logistics teams to translate business requirements into shipped platform and mobile features.

Mapin Data *Istanbul, TUR*
Data Engineering Intern *Jan 2026 – Mar 2026*

- Built an end-to-end extraction pipeline in Python that turns unstructured web pages, PDFs, and QR codes into structured data, using FireCrawl for crawling, OpenCV for image preprocessing and QR decoding, and Vision-Language Models (VLMs) for document understanding.
- Reduced LLM token costs by 70% by designing custom text-chunking algorithms and optimizing model routing on OpenRouter, while maintaining ~80% extraction accuracy.
- Mapped parsed output into a production-ready JSON schema with the core team, making it directly usable for downstream AI tasks.

Menatek Technologies *Istanbul, TUR*
Software Engineer Intern *Mar 2025 – May 2025*

- Built a full-stack inventory management system from scratch with PHP and MySQL, centralizing asset tracking for 45 employees across 6 departments.
- Designed a normalized relational schema with foreign-key constraints and indexes on frequently queried columns, keeping asset lookups fast as records grew to 500+.
- Implemented session-based authentication with hashed passwords and role-based access control (RBAC), restricting sensitive actions such as asset deletion and transfers to authorized roles.

PROJECTS

- **Mini-CDN**: Built a CDN simulation with three edge cache nodes, round-robin routing, TTL/LRU caching, and Prometheus/Grafana monitoring.
- **Agentic RAG System**: Built a multi-agent RAG platform with a LangGraph supervisor, hybrid retrieval (dense + BM25 + ross-encoder reranking), and Qwen served on vLLM, deployed with Docker, Redis, Postgres, and JWT auth.
- **Turkish Gemma-4 Fine-tune**:Fine-tuned Gemma-4-E4B on 3,000 Turkish RAG examples, training 0.23% of parameters in about 42 minutes on an A100, and published LoRA, 16-bit, and GGUF versions on Hugging Face.
- **Multimodal Agentic Chatbot**: Built a local-first chatbot for grounded Turkish document Q&A with citations, supporting image, PDF, and voice input (faster-whisper STT, edge-tts TTS), web-search fallback, LangSmith tracing.

TECHNICAL SKILLS

Prog. Languages: Python, C/C++, Bash/Shell

AI & ML: PyTorch, OpenCV, LangChain, vLLM, llama.cpp, RAG, Agentic Systems, Vector DB(Qdrant), MCP

Cloud & Backend: AWS, Docker, FastAPI, Linux

Languages: Turkish , English

EDUCATION

Istanbul Medeniyet University *Istanbul, TUR*
B.Sc. Computer Engineering (GPA: 3.20) *2022 – 2026*