Burak Ceylan

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Education

Istanbul Technical University — Istanbul, Türkiye
B.Sc. in Computer Engineering (100% English) — *Sep. 2023 – June 2028*

- Ranked **274th** among ~3 million candidates in the Turkish National University Entrance Exam (YKS)
- Coursework: Robotics, Analysis of Algorithms, Microprocessor Systems, Database Systems, Data Structures, OOP

Experience

Doğuş Teknoloji — May 2026 – Present
Entrepreneurship & Product Development Intern — *Istanbul, Türkiye*

- Scoped and co-developed a **contract-review AI agent** for the Partnerships and Legal teams that compares revised contracts clause by clause, flags risky clauses and retrieves precedent decisions (NestJS, BullMQ, Azure OpenAI)
- Owned its roadmap and UI, repaired hybrid (BM25 + vector) RAG retrieval and added Playwright E2E tests and a lint gate
- Built a **multi-agent assistant** for the Entrepreneurship team on GitHub Copilot CLI (41 skills, 6 agents, 130 tests) for startup scouting, daily briefings and evidence-graded robotics market research (38 key claims verified, 0 false)
- Built the application portal and jury scoring app for the company's Robotics Hackathon (React, Firebase)

LithorAI (pre-incorporation) — Aug. 2026 – Present
Co-founder & Technical Lead, with faculty of the ITU Eurasia Institute of Earth Sciences — *Istanbul, Türkiye*

- Designed a **geothermal prospectivity engine** that fuses multi-source open geoscience data with positive-unlabeled XGBoost bagging into uncertainty maps with SHAP attributions; validated with spatially blocked CV
- After customer discovery with a major Turkish geothermal operator, architected the **agentic layer**: Reader, Analyst, Auditor and Writer agents that draft due-diligence reports using MCP physics tools and citation checks

JSP Studio — Oct. 2026 – Present
AI Video Pipeline Engineer — *Remote*

- Extended an AI post-production pipeline for a 250K+ subscriber YouTube channel: raw footage to Premiere timelines
- Re-architected agent orchestration after profiling showed 70–85% idle tool waits: job runner, parallel agents, render caching

ITU GINOVA Entrepreneurship & Innovation Center — Oct. 2025 – Jan. 2026
Jump Start Pre-incubation Program Participant — *Istanbul, Türkiye*

- Prototyped an AI invoice-extraction MVP (Gemini API, Streamlit) in a 3-person team with program mentors

Startgate – GameActor — Feb. 2025 – Mar. 2025
Software Engineering Intern — *Istanbul, Türkiye*

- Developed user-facing web interface components in React.js for an early-stage game startup

Projects

Climate Digitizer | *3rd Place, Kandilli Hackathon | JavaScript, Canvas, Firebase* — Mar. 2026 – May 2026

- Built the tracing engine, calibration and robust cross-validation (median consensus, IQR outliers, leave-one-out) of a crowdsourcing platform digitizing 115 years of analog weather charts; 9.1/10 agreement across 13 volunteers
- Presented to the Kandilli Observatory director and the Director General of the Turkish State Meteorological Service; first-authored a 17-page paper (Zenodo, DOI 10.5281/zenodo.20020992)

GelAl Autopilot | *Foodathon by ATP Capital | Python, LightGBM, XGBoost, FastAPI* — Apr. 2026

- Owned the data and ML layer of a 4-person team's product that nudges food-delivery users toward pick-up: propensity models on 1M orders and a recommendation engine that sets the minimum personalized discount

Car Dealer Decision Engine | *Python, FastAPI, TypeSafe Jev, NumPy, Chrome Extension* — Sep. 2026 – Present

- Ranks my family's dealership listings by expected profit with a ridge price model, YAML rules and TypeSafe **Jev**; ~290 tests

Instagram DM Booking Agent | *TypeScript, Claude API, PostgreSQL, BullMQ, Next.js* — Jun. 2026 – Jul. 2026

- Claude tool-use agent that books and reschedules salon appointments over Instagram DMs; co-built ~93% of code

AI-Maintained Second Brain | *Obsidian, Claude Code, Git* — Aug. 2026 – Present

- Made Claude Code maintain my notes as persistent agent memory: 120+ linked wiki pages from 270+ sources

Meeting Transcriber | *Python, Swift, OpenAI Whisper (faster-whisper)* — Sep. 2026 – Present

- Offline system-audio meeting transcriber shipped as a notarized macOS app; its transcripts feed my second brain

Course Registration Agent for ITU Students | *Python, PySide6, Cloudflare Workers* — Jun. 2026 – Sep. 2026

- Notarized macOS/Windows app with ms server-time alignment and an Ed25519-signed offline licensing service; 240 tests

Technical Skills

AI Engineering: Claude Code, Codex, multi-agent orchestration (herdr, subagents, worktrees), agent memory, MCP, RAG
Machine Learning: XGBoost, LightGBM, scikit-learn, SHAP, positive-unlabeled learning, Whisper
Languages & Web: Python, TypeScript, JavaScript, C, C++, SQL, React, Next.js, Node.js, NestJS, FastAPI
Infra & Testing: Firebase, PostgreSQL, Redis, Azure, Cloudflare, Docker, Git, Pytest, Vitest, Playwright