

Arhan Dönerkaya

Software & AI Engineer | Informatics Student, Czech Technical University in Prague

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SUMMARY

First-year Informatics student at the Czech Technical University in Prague who builds and ships full-stack and AI-integrated software. Co-founded a crypto wallet startup as CTO and built its mobile app and backend end to end. Author of SafeAgentDB, an open-source Python library for safe AI-agent database writes, evaluated with a published benchmark. Focused on AI engineering and LLM evaluation.

EDUCATION

Czech Technical University in Prague, Faculty of Information Technology

Sep 2026 – Jun 2029 (expected)

Bachelor's degree in Informatics | Prague, Czechia

Kadir Has Anatolian High School

Sep 2020 – Jun 2024

High school diploma | Istanbul, Türkiye

EXPERIENCE

Co-Founder & CTO, SimpliWallet Inc.

Nov 2025 – Feb 2026

Delaware, United States | Remote

- Designed and built SimpliWallet, a non-custodial multi-chain crypto wallet (Ethereum, Solana, Bitcoin) that lets users send crypto to a phone number instead of a wallet address; took the product from zero to a beta-ready MVP.
- Built the iOS and Android app in React Native, Expo and TypeScript: 25+ screens covering wallet creation and import, sending, token swaps, NFT gallery, a WalletConnect dApp browser and a DeFi dashboard.
- Implemented key management with BIP39/BIP32 derivation per chain, AES-256-GCM encrypted seed storage in the device keychain, and biometric unlock.
- Built the backend on Firebase: phone-number authentication, Firestore with client read-only security rules, and Cloud Functions (TypeScript, Node.js) for blockchain webhooks, push notifications and rate-limited phone-to-wallet linking.
- Integrated Alchemy, Helius, 1inch, Jupiter and Mempool.space APIs, and built the product and company websites.

Founder, Vibbe Studio

Jun 2025 – Present

Istanbul, Türkiye | vibbe.studio

- Run a small product studio that designs, builds and hosts web products, including Cafly and VOID (see Projects).
- Delivered websites for hospitality clients, including Özsüt İdealtepe and Jarden De La Rue.
- Operate production infrastructure on two Hetzner Linux servers with Docker and Caddy.

PROJECTS

SafeAgentDB, open-source Python library | github.com/arhandonerkaya/safeagentdb

Feb 2026 – Present

- Published on PyPI. Runs an AI agent's SQL in a tenant-scoped in-memory sandbox, validates and diffs the changes, then applies them to production in one atomic transaction with compare-and-swap conflict detection.
- 432 automated tests; GitHub Actions CI on Python 3.10 to 3.12 and PostgreSQL 16. Built with SQLAlchemy and Pydantic.
- Designed a two-arm benchmark (68 tasks, Claude agents, an independent auditor, replay, uninformed and informed conditions). On v0.3.1 the library prevented every in-scope unsafe write that reached it, with zero false positives.
- The benchmark exposed a key-collision bug that blocked valid inserts (9/99 safe tasks); fixed and verified in v0.3.1 (0/102).

GATE, AI exam generator | gate.study

Mar 2026 – Present

- Generates exam questions with LLMs and checks them with a second model (cross-model verification); LaTeX math, custom exam builder and weak-area analytics.
- Python, FastAPI, Next.js, PostgreSQL, Redis, Docker, OpenAI and Anthropic APIs.

Cafly, QR menu and ordering SaaS for cafés | cafly.app

Feb 2026 – Present

- Real-time ordering over WebSockets, an LLM menu assistant, role-based access for owners and staff, and subscription billing.
- Python, FastAPI, Next.js, PostgreSQL, Redis, Docker, Anthropic API.

VOID, interactive browser experiments | hahavoid.com

Mar 2026 – Present

- Nine experiments in dependency-free JavaScript (8,000+ lines): fluid and physics simulations, WebGL particle systems, Web Audio synthesis, a platformer and a simulated desktop OS.

SKILLS

Languages: Python, TypeScript, JavaScript, SQL

Backend and data: FastAPI, SQLAlchemy, Pydantic, PostgreSQL, Redis, Firebase (Auth, Firestore, Cloud Functions), REST APIs, WebSockets

Frontend and mobile: React, Next.js, React Native, Expo

Infrastructure and testing: Docker, Caddy, Linux servers, Git, GitHub Actions CI, pytest

AI: LLM APIs (Anthropic, OpenAI, Gemini), LLM evaluation and benchmark design, cross-model verification

Blockchain: ethers.js, Solana web3.js, BIP39/BIP32 HD wallets, WalletConnect

CERTIFICATIONS

CS50: Introduction to Computer Science, Harvard University (Mar 2026)

LANGUAGES

Turkish (native), English (fluent, IELTS 6.5)

ADDITIONAL

Multi-instrumentalist and live performer (guitar, bass, piano, drums, vocals). Volunteer in 2023 Türkiye earthquake relief.