

EFE BARAN DURMAZ

Software Engineer, Systems & Infrastructure

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Selected proof: **29 merged PRs in solana-foundation/pay-kit** · live product at **sardis.sh**

SUMMARY

Software engineer building backend, infrastructure, SDKs, internal tools, and AI-native systems in Python, TypeScript, Rust, and Go. Strongest at turning ambiguous infrastructure problems into shipped APIs, developer tooling, integrations, and measurable performance improvements.

WORK EXPERIENCE

Sardis Labs, Inc.

Dover, DE (Remote)

Founder & Lead Engineer

Oct 2025 – Present

- Shipped non-custodial payment and control infrastructure on Base and Tempo mainnet, with 70,000+ SDK installs across npm and PyPI
- Built the policy engine, REST APIs, multi-language SDKs (Python, TypeScript, Rust), smart-contract flows, and a signed, append-only evidence ledger
- Integrated MCP, OpenAI Agents SDK, Vercel AI SDK, Coinbase AgentKit, and x402/MPP across agent and payment workflows, with a pre-execution authorization and approval layer

Solana Foundation

Open Source

Core Contributor, Machine Payments Protocol (pay-kit)

May 2026 – Present

- Merged 29 PRs into solana-foundation/pay-kit (the Foundation's Machine Payments Protocol SDK) plus 3 into solana-foundation/x402-sdk
- Authored client libraries in Go, Swift, Kotlin, Lua, PHP, Ruby, and Python (client, wire signing, interop adapter), and built a cross-language interop harness over a simulated network

Jotform

Ankara, Turkey

Backend Engineer Intern

Jan 2026 – May 2026

- Built jot-logger (Go CLI/TUI) for production log inspection; adopted company-wide across engineering teams and reduced a 10-20 minute incident-debugging workflow to roughly 30 seconds
- Shipped a real-time coding interview platform (React + Monaco Editor, PHP/WebSocket) now used in Jotform's hiring process

Nokia

Ankara, Turkey

AI & Backend Engineer Intern

Sep 2025 – Dec 2025

- Rewrote a stalled RAG indexing pipeline by instrumenting queue topology and splitting IO-bound vector-store calls from CPU-bound chunking into distinct Celery worker pools
- Replaced LangChain chunking with a custom Rust engine bound to Python through PyO3, delivering a 6× end-to-end speedup
- Indexed 300K documents in 3 weeks instead of the projected quarter and avoided a six-figure GPU spend; migrated storage to MinIO for stateless Kubernetes pods

Nokia

Ankara, Turkey

Network Engineer Intern

Jul 2025 – Aug 2025

- Automated temperature anomaly monitoring across thousands of OLT/ONT devices, replacing manual checks with real-time alerting
- Refactored legacy scripts (Bash, Perl), cutting disk I/O via stream processing and removing hard-coded paths

PROJECTS

YULA OS · TypeScript, Next.js, Hono/Bun, Convex

2025 – Present

- Built an open-source autonomous AI agent with its own harness: a proactive callback loop (acts before being prompted), self-learning, and MCP tool use
- Wrapped each action in a deterministic control layer: classified by reversibility, signed, audit-logged, and gated for approval, undo, and replay

AgentGit (agit) · Rust, Python, TypeScript

2026 – Present

- Built an auditable, content-addressed version-control layer (diff, rollback, traceability) for automated workflows and state
- Rust core (SHA-256 DAG, Merkle JSON diff, AES-256-GCM) with PyO3 and napi-rs bindings exposing Python and TypeScript SDKs

Capsule · TypeScript, Provider Adapters

2026 – Present

- Built a domain-aware control-plane interface for sandboxes, jobs, services, edge functions, database branches, machines, and preview environments
- Modeled provider capabilities with explicit support levels, policy checks, and execution receipts; adapters across Docker, E2B, Modal, Cloud Run, Cloudflare, Vercel, Neon, Kubernetes, Lambda, and more

SKILLS

Languages: Python, TypeScript/JavaScript, Rust, Go, SQL, Bash. Also used: Solidity, PHP, Java, C++, SystemVerilog

Backend, APIs & Web: REST and gRPC APIs, WebSocket, microservices, system design, distributed systems; FastAPI, Flask, Phoenix/Elixir, Node.js, React, Next.js, Tauri, Celery

Data & Infrastructure: PostgreSQL, Redis, SQLite, Qdrant, vector database search, Docker, Kubernetes, AWS (S3, SQS), GCP Cloud Run, Vercel, Neon, MinIO, data pipelines, observability

ML & Agents: machine learning, LLMs, RAG, embedding pipelines; LangChain, LangGraph, MCP, OpenAI Agents SDK, Anthropic, Gemini/Google ADK, Vercel AI SDK

Security & Identity: authentication and authorization, IAM/identity, RBAC, encryption (Ed25519, AES-256), policy engines, audit logs, evidence chains

Tools: Git, Linux, CI/CD (GitHub Actions), PyO3, napi-rs, Foundry, Pytest, Jest, Playwright

EDUCATION

Bilkent University, B.Sc. Information Systems & Technologies

Ankara, Turkey · Aug 2023 – May 2027

Full Merit Scholarship, 3.53 GPA, 3× High Honor, top 0.04% on national university entrance exam