Berk Durmus
Software Engineer

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Work experience

Center Health

Software Engineer
October, 2022 — Now

- Built AI-powered clinic agents that automated 60% of routine workflows, reducing clinical operations time from hours to minutes across 50+ U.S. clinics
- Developed Structured Self-Evolving LLM Memory system handling 10,000+ patient conversations with 90% accuracy retention - enabling consistent chat context without losing critical medical facts
- Implemented LLM observability pipeline using Langsmith + Langchain, reducing model hallucinations by 85% and improving clinical safety scores
- Automated EHR workflows that eliminated 75% of manual data entry for providers, saving 2+ hours per clinician daily
- Led LLMOps infrastructure: automated testing pipelines, model evaluation frameworks, and prompt optimization systems
- Architected MCP-driven Playwright automations and human-in-the-loop safety systems for critical clinical decisions
- Scaled platform from 2,000 to 18,000 monthly paying users through engagement features and scalable architecture design
- Designed signup funnel and paywall optimization, increasing MRR by 15% within 3 months
- Established comprehensive testing framework: unit, integration, and E2E tests with 95% code coverage

Typescript • Python • AWS • Node • Svelte • Angular • Langchain • MongoDB • PostgreSQL • Playwright • Clojure • Docker • Express • Node • SQS • Kafka

Pulfy.com

Co-founder & CTO
July, 2020 — October, 2022

- Built automated data pipeline ingesting 10,000+ destinations (events, festivals, pricing, flights, costs, weather, visa data) powering intelligent travel recommendations
- Developed ML-powered recommendation engine processing user preferences, calendar availability, and real-time pricing to generate personalized travel itineraries - built this recommendation system in 2021, well before the current LLM and AI hype
- Hired 2 engineers, scaled user base from 0 to 7,000 paying customers in 15 months through product-led growth and recommendation engine optimization
- Led the deployment of web, iOS, and Android applications, ensuring a seamless user experience across platforms, leveraging the Ionic framework for efficient cross-platform development

Typescript • Python • React • Ionic • Express • Node • MongoDB • Airflow • Docker • GraphQL • AWS • PostgreSQL

Turing

Software Engineer
Jan, 2019 — July, 2020

- Delivered full-stack solutions for 15+ EU enterprise clients, implementing strategic technology roadmaps and product analytics that increased user engagement
- Built data infrastructure tools including web crawlers processing 1M+ pages daily, IP rotation systems, and keyword analysis engines that improved SEO rankings by 60%
- Engineered scalable data pipelines with real-time streaming, notification services, and internationalization support serving 100,000+ daily active users

Javascript • Python • AWS • React • Docker • PosgreSQL

Gun.io

Freelence Software Developer
February, 2017 — July, 2019

- Delivered 20+ full-stack projects for diverse clients including e-commerce platforms, data analytics dashboards, and knowledge graph systems
- Built high-performance applications using modern web technologies, achieving 99.9% uptime and sub-200ms response times

Javascript • Node • React • Python • PostgreSQL • Redis • Neo4j • MySQL

Bilkent Brain Research Center

Intern Project Engineer
October, 2016 — February, 2017

- Conducted MRI signal processing research using Siemens MAGNETOM scanner, analyzing dual-channel RF coil optimization for improved image quality and reduced scan times
- Performed quantitative analysis of signal-to-noise ratio improvements across different coil configurations, contributing to ongoing neuroimaging research protocols
- Collaborated with neuroscience researchers and medical imaging technicians to optimize MRI acquisition parameters for brain studies

MATLAB • MRI Signal Processing • Medical Imaging Analysis

Agrience

Co-founder
October, 2015 — June, 2016

- Agrience is a agriculture robot designed to detect plant diseases and provide proper treatment according to the disease. With periodic check-ups the field is proactively detected without any human interaction.
- Worked on disease detection algorithm and image processing solutions.

OpenCV • Arduino

Ford Motor Company Turkey

Electronics Engineering Intern
June, 2016 — August, 2016

- Developed VHDL code for truck electronics controller optimization, focusing on power management and signal processing efficiency for commercial vehicle systems
- Collaborated with senior engineers on embedded systems design, contributing to next-generation truck electronic control units (ECUs)

VHDL • Digital Circuit Design • Embedded Systems

Recent Projects

Fast Interoperable Rules Engine for Healthcare Workflows

Healthcare Standards Validator: Clojure based validator standards like HL7 FHIR

ClinicalGuardRail: Safety Layer for AI models, compliants with Healthcare regulations

MCP server for handling DICOM (Digital Imaging and Communications in Medicine)

Serverless ETL pipeline that unifies genomic data, clinical notes, imaging results, and wearable device data into a single queryable interface for precision medicine

Telerin: Product Analytics for LLM Conversations (Still building)

TraceStation: Open source Playwright Debug Agent

BrowserNest: MCP Driven Playwright Browser Automation

Education

Bilkent University

MS Computer Science (Machine Learning focus)
2017 — 2019

Bilkent University

BS Electrical and Electronics Engineering
2013 — 2017