

DJ Dinnebeil

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Professional Summary:

Backend-focused software engineer experienced in APIs, data workflows, AI-driven applications, and software systems, with a strong interest in efficient system design and software architecture. Skilled in building production-ready systems that integrate databases, backend services, user interfaces, and external services with an emphasis on reliability, maintainability, and practicality.

Technical Skills:

Languages: C++, C, Python, JavaScript, PHP, SQL, HTML, CSS

Backend: Django, FastAPI, Flask, Node.js, Express, REST APIs

AI & ML: LangChain, LangGraph, TensorFlow, RAG, LLM APIs

Databases: PostgreSQL, MariaDB, SQLite, Qdrant

Frontend & UI: React, Redux, Vite, Streamlit, Jinja2

Infrastructure & Tools: Git, Linux, Docker, Win32, AWS S3, Firebase

Engineering Practices: System design, automated testing, CI/CD, secure coding

Experience:

KDAK Properties | Toms River, NJ | Feb 2026 – Present

Freelance Software Engineer

Production property management platform built for a residential real estate company.

Live Site: kdakproperties.com/platform

- Implement role-based access controls and application workflows to separate administrative and tenant functionality for rent payments, lease access, maintenance requests, and payment history.
- Optimize rent payment reliability by migrating payment processing to a third-party platform while retaining a cron-based bank-notification fallback for edge cases.
- Develop a containerized Docker/DDEV development environment to validate production compatibility after server upgrades and PHP updates.
- Design secure administrative and frontend customization tools with the owners, including guided utilities for configuring layouts and adding custom themes.

Auto Core | Parsippany, NJ | Nov 2023 – Present

Creator & Software Engineer

Windows utility for streamlining task execution and desktop automation.

Project: djdinn.dev/autocore

- Build a C++ keyboard manager with Win32 APIs to intercept key events and execute user-defined commands for taskbar navigation, text insertion, application control, and custom shortcuts.
- Develop a multi-process component architecture with named pipe communication to isolate services, contain failures, and coordinate inter-process messaging.
- Define component interfaces, shared protocols, and architectural standards to maximize system efficiency and guide design decisions.
- Refine keymap configuration for maintainability and collaboration by replacing compiled command mappings with runtime configuration with ~1 ms of measured startup overhead.

Historical Research Assistant | New York, NY | Jun 2025 – Jul 2026

Applied AI Software Engineer

AI-powered research application supporting historical and cultural projects.

Project: djdinn.dev/history-rag

- Developed a document-grounded retrieval-augmented generation application for querying historical sources, reducing manual document review and improving research efficiency.
- Designed an ingestion pipeline to parse source materials, generate embeddings, manage metadata, and support Qdrant-backed semantic search.
- Applied RAGAS evaluation metrics, Cohere reranking, and source-aware validation workflows to improve retrieval relevance, answer grounding, and query-to-document alignment.

SoundShift Player | New York, NY | Jun 2024 – Dec 2024

Full-Stack Software Engineer

Music application for prototyping and testing Spotify extension features.

Project: djdinn.dev/soundshift-player

- Developed a full-stack music application using Python, Django, PostgreSQL, and AWS S3, supporting playback, song management, playlists, favorites, and listening history.
- Implemented listening-history analysis and automatic song-skipping logic to reduce repeated tracks and encourage greater listening variety.
- Integrated the Spotify API and cloud-based media storage to support playlist analysis, music discovery workflows, and scalable asset delivery.

Research & Digital Projects:

South Jersey Culture and History Center | Galloway, NJ | Aug 2018 – May 2022

Researcher and Developer

Historical research and interactive digital projects spanning regional, national, and military history.

- Conducted extensive research on the ghost town of Amatol as part of New Jersey's World War I Centennial commemoration and developed the Amatol Game, a web-based history game with dynamic gameplay systems and player-event logging for debugging and behavior analysis.
- Researched the 1774 Greenwich Tea Party and developed a public-facing website with a quiz, scoreboard, visitor feedback, and lightweight engagement analytics to evaluate usage patterns and improve the visitor experience.

Education:

Stockton University — M.A. American Studies; B.S. Computer Science; B.A. Economics

Honors: Certificates of Distinction in Honors and Service; Distinguished Research Fellowship

App Academy — Software Engineering Certificate

AI Makerspace — AI Engineering Certificate

Military Experience:

United States Coast Guard Reserve — Electronics Technician

Honors: Exceptional Merit Award; Honor Graduate