

Prasant Koirala

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TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, C++, C, SQL
Frameworks: React, Node.js, Express.js, Django, HTML5, CSS3
Tools: Git, Vercel, REST APIs, Docker, Azure

EXPERIENCE

Web/App Development Intern

Jun. 2024 – Present

Optimal Answers, LLC

Gulfport, Mississippi, United States

- Collaborated with engineering and marketing teams to enhance both public and internal software websites.
- Improved UI navigation speed by linking UI buttons to backend database table navigation systems.

SAT Teacher

Jan. 2024 – Jul. 2024

Nepalese Encounters Education Consultancy

- Taught SAT prep classes to multiple student cohorts in Math and English.
- Helped raise students' average SAT scores by 20% (from 1100 to 1320).

PROJECTS

Chell – A Custom Shell in C | C, Unix/Windows

Mar. 2025

- Designed and implemented a lightweight Unix-like shell in C with cross-platform support for Windows and Unix-based systems, featuring custom command execution, built-in commands, command history, and pipeline support.
- Engineered a custom command parsing and execution system that efficiently handles user input, demonstrating expertise in low-level system calls and process management.

Personal Status | C++, Windows API, REST | (Has Users)

Jun. 2025

- Built real-time desktop monitoring system using C++ and Windows API that tracks development activity and pushes status updates to the portfolio website via secure REST API
- Developed cross-platform web integration with threaded architecture, local HTTP server, and Vercel API endpoint featuring API key authentication and JSON data exchange

Song Review Platform | React, Node.js, Express, MySQL

Jan. 2025

- Made a website to review songs available on Spotify. Users can give ratings to songs, and leader leaderboard is available for the songs according to their genre.
- Handled backend logic and database schemas for secure user input and data display.
- Coded Production Level code and made sure the website was safe from common attacks like SQL injection and DDoS attacks.

Spotify to ytmusic | React, Django, MySQL

Jun. 2025

- Developed a full-stack playlist migration application using React.js frontend and Django REST API backend, implementing OAuth 2.0 authentication flows for both Spotify Web API and YouTube Music API, with cross-origin session management via localStorage and Base64 token encoding
- Built automated music catalog matching engine that processes Spotify playlist metadata, performs intelligent song search queries against YouTube Music's catalog using fuzzy matching algorithms, and creates corresponding playlists with comprehensive error handling and transfer status reporting

EDUCATION

The University of Southern Mississippi

Hattiesburg, MS

Bachelor of Science in Computer Science, GPA: 4.0

Aug. 2023 – Present