Richard Feng

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https://www.richardfeng.dev

Current fourth year student double-majoring in computer sciences and data science with a minor in math. Planning to graduate December 2025. Seeking in-person or remote software engineer, frontend, or backend developer.

TECHNICAL SKILLS AND TOOLS

Languages:	Java	Python	SQL	JavaScript	TypeScript	R	HTML & CSS
Frameworks & Libraries:	React	Next.js	PyTorch	SpringBoot
Tools & Tech:	GitLab	Docker	Jupyter	Maven	phpMyAdmin	MySQL	JDBC	REST	Scrum
Platforms & Development:	Windows	macOS	Linux	Netlify	GCP

PROJECTS

Pokemon Card Scanner   **June 2025 - Present**

Developed a full-stack application that identifies Pokémon TCG cards using computer vision and machine learning. Designed to help collectors quickly catalog cards by scanning them with a device camera, the app processes images via TensorFlow.js and cross-references results with the Pokémon TCG API for accurate metadata.

- Integrated the Pokémon TCG API to fetch card metadata (rarity, set, market value) post-identification, reducing all manual data input
- Designed a batch processing pipeline (Python + Node.js) to train models incrementally, optimizing storage usage
- Implemented responsive frontend (React) with camera capture, real-time preview, and clipboard export for seamless card logging

Asteroids   **February 2025 - April 2025**

Collaborated with a team of 6 to build a full-stack Asteroids game featuring user accounts, stat tracking, and leaderboards. Focused on frontend development, visual design, and integrating backend functionality. Contributed to project planning and led efforts as Scrum Master and Product Owner during different phases of development using Agile/Scrum with 3 sprint meetings a week.

- SM for 4 weeks, PO for 2 weeks, organized and led meetings, code reviews, deliverable and issue boarding, and demo planning
- Defined full tech stack (React, REST, Spring Boot, JDBC, MySQL); led architecture design across frontend, API, and backend
- Designed and implemented the gameplay page using a React-based interface and created custom sprites for game assets
- Integrated frontend with backend through REST API responses to dynamically render game state in real time; collaborated with backend developers through pair programming to ensure consistent data flow

Personal Portfolio Website (richardfeng.dev)   **Aug 2024 - Sept 2024**

Built a portfolio website from scratch using React. Developed using NextJS and TypeScript and hosted on Netlify. Includes personal information, contact information, resume, and more. Work in progress.

- Learned how to create an interactive website for portfolio with flexible U/I elements to reduce change amplification
- Designed and developed a flexible personal website using React and TypeScript for code and Procreate for custom assets
- Experimented with full-stack skill sets to create a user-friendly site with creative elements for a clean portfolio

Lobby Organizer Discord Bot   **June 2024 - July 2024**

Built a Discord bot that streamlines the lobby creation processes for games. Allows for users to interact with the bot to create lobbies and find players to fill lobbies utilizing Discord API. Ran from remote laptop.

- Built commands that allow users to display and create lobbies with game title and starting time
- Increased ease of use through reactions and voice channel commands to interact with the bot to create simple and clean U/I

Minirel Database   **March 2024 - April 2024**

Jointly designed and developed a single-user DBMS that can execute simple certain SQL queries using C++ through remote UNIX machines according to specifications. SQL parser and disk supplied.

- Worked with a peer to design a database through relation tables and relational graphs
- Created buffer manager, heapfile manager, and relational operators in partnership utilizing pages, heapfile scanners through linked lists, and SQL operations using filters.

EDUCATION

UW Madison (Expected Graduation Date: Dec 2025)
GPA: 3.71 / 4.00

Bachelor of Science (BS) in Computer Sciences

Java Programming III || Machine Organization & Programming | Honors Intro to Algos
Database Management Systems | Intro to AI | Computer Graphics
Big Data Systems | Software Engineering
Mobile Systems (P) | Cryptography (P) | Computer Networks (P)

Bachelor of Science (BS) in Data Science

Python Programming II | R Data Science Modeling II | Nonparametric Statistics