

Erin Van Brunt

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Portfolio: ErinVanBrunt.com | [LinkedIn](#) | [GitHub](#) | [Medium Blog](#)

Full-Stack Software Engineer

Versatile Full-Stack Software Engineer with a strong focus on front-end development and a growing expertise in AI and machine learning. Skilled in creating user-friendly, responsive web applications and interactive games that blend technical precision with artistic sensibility to deliver high-quality, intelligent user experiences. Proficient in solving complex problems and transforming them into elegant, innovative solutions.

Technical Skills

Languages & Frameworks: JavaScript (ES6+), TypeScript, React.js, Node.js, Express.js, Ruby on Rails, Next.js, jQuery, Sinatra, HTML5, CSS3, SQL, Python, Ruby, Java, JSX

Database & State Management: MongoDB, PostgreSQL, MySQL, SQLite, Redux, React Hooks, Local Storage, Data Structures

Deployment & Server Configuration: Nginx, GoDaddy VPS, SSH, SSL certificate management, Environment Variables, Secure Deployment Practices

Web Technologies & API Integration: RESTful API Design, Server-Side Rendering, JWT, OAuth, bcrypt, Axios, Fetch API, Web Audio API, HTML5 Canvas, Collision Detection (AABB), Custom React Hooks, CORS configuration

Development Tools & AI: Git, GitHub, VSCode, npm, Heroku, Netlify, Claude AI, Agile, Scrum, TDD/BDD, RSpec, Responsive Design, Cross-Browser Compatibility, Mobile-First Development, Component-based Architecture, Cadence Virtuoso IC6.1

UI/UX & Design: CSS Grid, Flexbox, Media Queries, CSS Keyframes, CSS Animations, Wireframing, Pixel Art Design

Projects

Professional Portfolio Deployment | November 2024

Deployed a full-stack portfolio website hosted on a GoDaddy VPS with AlmaLinux 8, featuring secure data handling, responsive design, and optimized production configuration.

- Configured Nginx for HTTP and HTTPS traffic management, implemented Node.js backend with MongoDB for shop functionality, and configured environment variables through .env files for secure handling across development and production environments
- SSL certificates ensure data security, while CORS policies allow API requests from multiple domain variations
- Server.js was adapted to automate static file serving and support a seamless production setup

Technologies Used: AlmaLinux 8, Nginx, Node.js/Express, MongoDB, CORS, Environment Variables

[GitHub](#) | [Live Demo](#)

Full-Stack E-Commerce Platform: Evie & Co. | October 2024

Created a comprehensive MERN stack e-commerce solution applying React.js for the frontend and Node.js with Express.js for the backend, integrated with MongoDB.

- Established secure user authentication with JWT and bcrypt, along with a comprehensive shopping cart system and intuitive product browsing experience

- Adapted React Hooks for efficient state management and implemented RESTful API design principles

Technologies Used: React, Node.js, MongoDB/Mongoose, Express.js, JWT Authentication, bcrypt

[GitHub](#) | [Live Demo](#) | [Video Walkthrough](#)

Cemetery Run: Retro-Inspired Arcade Game | October 2024

Engineered an engaging endless runner game using React.js and HTML5 Canvas, featuring custom pixel art and retro-style graphics

- Coded complex game mechanics, including collision detection, dynamic difficulty scaling, and custom controls for both desktop and mobile
- Leveraged requestAnimationFrame for smooth animations and game loop management
- Incorporated Web Audio API for immersive sound, with user-controlled audio settings

Technologies Used: React 17.0.2, HTML5 Canvas API, requestAnimationFrame, Custom Game Physics

[GitHub](#) | [Live Demo](#) | [Video Walkthrough](#)

Interactive Crossword Puzzle | September 2024

Composed and built a crossword puzzle game featuring complex data structure manipulation and dynamic state management

- Engineered an advanced grid generation algorithm that maps and transforms question-answer pairs into an interactive game board, handling multi-directional words and intersecting letters
- Streamlined sophisticated keyboard navigation and word highlighting system using React's useState and useEffect hooks
- Created a responsive design using CSS Flexbox and media queries for seamless play across various devices

Technologies Used: React Hooks (useState, useEffect, useCallback), Complex Data Structure Mapping, Custom Grid Generation Algorithm, Dynamic State Management, CSS Grid/Flexbox

[GitHub](#) | [Live Demo](#) | [Video Walkthrough](#)

Dynamic Blog Content Integration | November 2024

Developed a React-based platform that dynamically fetches and displays blog posts from Medium employing Axios and the RSS2JSON API.

- Initiated robust error handling patterns with loading state management for optimal UX
- Fabricated an 80's sci-fi themed interface featuring custom CSS animations and responsive design

Technologies Used: React, Axios, RSS2JSON API, CSS Animations/Keyframes, Error Handling

[GitHub](#) | [Live Demo](#) | [Video Walkthrough](#)

Professional Experience

Restaurant Manager | April 2014 - Present | Pacific Northwest and Southwest US

- Led teams of 15+ employees, driving a 20% increase in sales through optimizing operations, improving workflows, and refining inventory management
- Developed data-driven strategies to enhance operational efficiency and ensure smooth day-to-day functions
- Managed key areas including scheduling, staffing, inventory, bookkeeping, and social media marketing, while ensuring compliance with health and safety regulations
- Demonstrated strong team leadership, communication, and problem-solving skills, resulting in improved team productivity and customer satisfaction
- Applied high level of adaptability, attention to detail, and solution-oriented mindset to drive business success

Layout Engineer | February 2011 - March 2014 | Analog Devices, San Jose, CA

- Formulated and optimized over 50 analog and digital layouts for ICs in mobile devices using Cadence Virtuoso IC6.1
- Utilized Cadence tools for schematic capture, layout design, and simulation, ensuring precise alignment and adherence to design rules
- Conducted DRC and LVS verifications using Cadence Assura, reducing error rates
- Collaborated with cross-functional teams to optimize circuit performance and layout efficiency

Education

Arizona State University | Principles of Programming with Java | 2023

Flatiron School | Full-Stack Software Engineering Certificate | 2022

General Assembly | Software Engineering Immersive Certificate | 2021

Silicon Design Institute | Mask Design / Layout Engineer | 2011-2013

Portland Community College | Art / Mathematics Major | 2009-2011

Cabrillo College | Art History Major | 2007-2009