### **Core Technologies**

1. **Frontend Framework**

* React 18
* TypeScript
* Vite (Build Tool)

1. **UI Components & Styling**

* Tailwind CSS
* Shadcn UI (based on Radix UI components)
* CSS Modules
* Google Fonts (Space Mono, Inter)

1. **State Management & Data Fetching**

* React Query (@tanstack/react-query)
* React Hook Form
* Zod (Schema validation)

1. **Backend & Database**

* Supabase
* PostgreSQL (via Supabase)

1. **Routing**

* React Router DOM

### **Development Tools**

1. **Package Management**

* npm
* bun (alternative package manager)

1. **Type Checking & Linting**

* TypeScript
* ESLint
* TypeScript ESLint

1. **Build & Development**

* Vite
* PostCSS
* Autoprefixer

1. **Version Control**

* Git

### **UI Components & Libraries**

1. **Radix UI Components**

* Accordion
* Alert Dialog
* Avatar
* Checkbox
* Dialog
* Dropdown Menu
* Navigation Menu
* Popover
* Progress
* Radio Group
* Select
* Slider
* Switch
* Tabs
* Toast
* Tooltip

1. **Additional UI Libraries**

* Lucide React (Icons)
* Embla Carousel
* Recharts (Data Visualization)
* Sonner (Toast Notifications)

### **Development Dependencies**

1. **Testing & Quality**

* ESLint
* TypeScript
* PostCSS
* Tailwind CSS
* Autoprefixer

1. **Build Tools**

* Vite
* SWC (via @vitejs/plugin-react-swc)

### **Project Structure**

### **main.tsx+1**

### import { createRoot } from 'react-dom/client'

### import App from './App.tsx'

### import './index.css'

### createRoot(document.getElementById("root")!).render(<App />);

### import { createRoot } from 'react-dom/client'

### import App from './App.tsx'

### import './index.css'

### createRoot(document.getElementById("root")!).render(<App />);

### **Key Features (based on dependencies)**

1. **Authentication** (via Supabase)
2. **Form Handling** (React Hook Form + Zod)
3. **Data Visualization** (Recharts)
4. **Responsive Design** (Tailwind CSS)
5. **Animations** (Tailwind CSS Animate)
6. **Dark Mode** (next-themes)
7. **Carousel/Slider** (Embla Carousel)
8. **Toast Notifications** (Sonner)
9. **Date Handling** (date-fns)

### **Development Environment Requirements**

1. Node.js (latest LTS version recommended)
2. npm or bun package manager
3. Git
4. Code editor with TypeScript support
5. Modern web browser

### **Security Considerations**

1. Environment variables for sensitive data
2. Type-safe API calls with Supabase
3. Form validation with Zod
4. Secure authentication flow

### **Performance Optimizations**

1. Vite's fast build system
2. SWC compiler for React
3. Tailwind CSS for optimized CSS
4. Code splitting with React Router
5. Lazy loading capabilities

This portfolio website appears to be a modern, full-featured application with a focus on performance, type safety, and developer experience. The technology stack is well-suited for building a professional portfolio with interactive elements, data visualization, and smooth user experience.