

# AI NIL Navigator - Elite Web Application for High School Athletes

Status **Production Ready**

React **18.3.1**

TypeScript **5.6**

Firebase **11.9.1**






**Live Demo:** <https://q8b598baq9.space.minimax.io>

A professional AI-powered web application that serves as a personal advisor for high school athletes, generating comprehensive NIL (Name, Image, Likeness) action plans with cutting-edge design and technology.




## Features

### Core Functionality

-  **AI-Powered NIL Plans:** Personalized strategies generated by Google Gemini AI
-  **Secure Authentication:** Firebase-based user registration and login system
-  **Profile Management:** Comprehensive athlete profile system (sport, year, state, goals)
-  **Responsive Design:** Perfect performance on desktop, tablet, and mobile devices
-  **Real-time Generation:** Instant AI-powered NIL strategy creation

### Design Excellence

-  **Elite Athletic Minimalist:** Professional black, white, and lime-green (#C4F000) theme

- ✨ **Smooth Animations:** Framer Motion-powered interactions
- 📖 **Premium Typography:** Outfit (headings) and Inter (body) font combinations
- 🎯 **Intuitive UX:** Clean layouts with generous spacing and purposeful design

## **Technology Stack**

### **Frontend**

- **React 18.3** with TypeScript for type-safe development
- **Vite 6.0** for lightning-fast build performance
- **Tailwind CSS 3.4** with custom elite athletic theme
- **Framer Motion 12.18** for smooth, professional animations
- **Lucide React** for consistent iconography

### **Backend & AI**

- **Firebase Authentication** for secure user management
- **Firestore Database** for real-time data storage
- **Google Gemini AI** for generating personalized NIL strategies
- **React Router 6** for seamless navigation

### **UI Components**

- **Radix UI** primitives for accessible components
- **Custom component library** with elite athletic styling
- **Form validation** with real-time feedback
- **Loading states** and error handling

# Project Structure

```
src/
├── components/           # React components
│   ├── auth/            # Authentication components
│   ├── ui/              # Reusable UI components
│   ├── LandingPage.tsx  # Hero and marketing page
│   ├── Dashboard.tsx    # User dashboard
│   ├── ProfileSetup.tsx # Athlete profile creation
│   ├── NILPlanGenerator.tsx # AI plan generation
│   └── NILPlanViewer.tsx # Plan display and viewing
├── contexts/            # React contexts
│   └── AuthContext.tsx  # Authentication state management
├── lib/                 # Utility libraries
│   ├── firebase.ts      # Firebase configuration
│   └── gemini.ts        # Google Gemini AI integration
└── hooks/               # Custom React hooks
```

## Setup & Installation

### Prerequisites

- Node.js 18+
- pnpm (recommended) or npm
- Firebase project
- Google Gemini AI API key

### Installation Steps

#### 1. Clone the repository

```
bash git clone <repository-url> cd ai-nil-navigator
```

## 2. Install dependencies

```
bash pnpm install
```

## 3. Environment Configuration

```
bash cp .env.example .env
```

Configure your `.env` file with:

```
```.env
```

# Firebase Configuration

```
VITE_FIREBASE_API_KEY=your_firebase_api_key
```

```
VITE_FIREBASE_AUTH_DOMAIN=your_project.firebaseio.com
```

```
VITE_FIREBASE_PROJECT_ID=your_project_id
```

```
VITE_FIREBASE_STORAGE_BUCKET=your_project.appspot.com
```

```
VITE_FIREBASE_MESSAGING_SENDER_ID=your_sender_id
```

```
VITE_FIREBASE_APP_ID=your_app_id
```

# Google Gemini AI

```
VITE_GEMINI_API_KEY=your_gemini_api_key
```

```
```
```

### 1. Firebase Setup

- Create a new Firebase project
- Enable Authentication (Email/Password)
- Create Firestore database
- Configure security rules

### 2. Development Server

```
bash pnpm run dev
```

### 3. Production Build

```
bash pnpm run build
```

## User Flow

1. **Landing Page:** Professional hero section with elite athletic branding
2. **Authentication:** Secure signup/login with comprehensive validation
3. **Profile Setup:** Detailed athlete information collection (sport, year, state, goals)
4. **AI Generation:** Personalized NIL plan creation using Gemini AI

5. **Dashboard:** Plan management and viewing interface
6. **Plan Viewer:** Detailed strategy display with actionable insights

## Design System

### Color Palette

- **Primary:** `#C4F000` (Elite Lime)
- **Secondary:** `#000000` (Elite Black)
- **Background:** `#FFFFFF` (Elite White)
- **Gray Scale:** Custom elite gray variations

### Typography




- **Headings:** Outfit (Bold, modern athletic feel)
- **Body:** Inter (Clean, highly readable)
- **Weights:** 300-900 with strategic font selection



### Animations

- **Page Transitions:** Smooth fade and slide effects
- **Form Interactions:** Real-time validation feedback
- **Loading States:** Professional progress indicators
- **Micro-interactions:** Subtle hover and focus effects

## Testing

The application has been thoroughly tested for:

-  **Design Quality:** Elite athletic minimalist theme perfectly implemented
-  **Navigation:** All buttons and links function flawlessly
-  **Form Validation:** Comprehensive real-time feedback

-  **Responsive Design:** Perfect across all device sizes
-  **User Experience:** Intuitive and professional interface

## Deployment

### Automated Deployment

The application is production-ready and deployed at:

<https://q8b598baq9.space.minimax.io>

### Manual Deployment Options

- **Vercel:** `vercel --prod`
- **Netlify:** Drag and drop `dist` folder
- **Firebase Hosting:** `firebase deploy`
- **AWS S3:** Upload `dist` folder to S3 bucket

## Performance Features

- **Code Splitting:** Optimized bundle sizes
- **Lazy Loading:** Components loaded on demand
- **Image Optimization:** Responsive images with proper formats
- **Caching:** Efficient browser caching strategies
- **SEO Ready:** Proper meta tags and structured data

## Security Features

- **Firebase Authentication:** Industry-standard security
- **Environment Variables:** Secure API key management
- **Input Validation:** Comprehensive form validation

- **Error Handling:** Graceful error boundaries
- **HTTPS:** Secure data transmission

## For High School Athletes

This application specifically serves high school athletes by providing:

- **Personalized Strategies:** AI-generated plans based on individual profiles
- **State-Specific Guidance:** Location-aware NIL opportunities
- **Sport-Specific Advice:** Tailored recommendations by athletic discipline
- **Progressive Development:** Phased approach from foundation to advanced strategies
- **Quick Wins:** Immediate actionable steps for instant impact
- **Long-term Vision:** Strategic goals for sustained success

## Contributing

This project follows industry best practices:

- TypeScript for type safety
- ESLint for code quality
- Prettier for code formatting
- Component-driven development
- Comprehensive error handling

## License

This project is designed as a professional demonstration of modern web development capabilities for elite athletic applications.

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### Built with ❤️ for Elite Athletes

Empowering the next generation of athletic excellence through cutting-edge AI technology and professional-grade user experience.