

## Introduction

CareerStack is a modern **portfolio and career management platform** designed to help users create, customize, and share their professional identity in a digital-first world.

The project was developed between **June 2025 – August 2025** as part of a full-stack SaaS-style application initiative. It focuses on empowering both students and professionals by offering tools to build visually appealing resumes, upload supporting documents, and generate shareable portfolio links.

The platform ensures:

- **Ease of use** through a clean UI and responsive design.
- **Security** with reliable authentication systems.
- **Scalability** by leveraging modern frameworks and cloud storage.
- **Future readiness** for AI-powered enhancements like RAG-based search and a chatbot assistant.

CareerStack ultimately provides an **end-to-end solution** for showcasing skills, achievements, and professional growth in a centralized, interactive platform.

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## Key Features (Detailed)

1. **Dynamic Portfolio Builder**
  - Users can build a **personalized profile page** with their **name, bio, skills, and social links (LinkedIn, GitHub, Twitter, Gmail, etc.)**.
  - The design is **fully customizable**, allowing easy updates to career milestones and achievements.
  - Responsive layout ensures **mobile, tablet, and desktop compatibility**.
2. **Resume Upload & Preview**
  - Supports **PDF resume uploads** with file validation.
  - Automatically generates a **thumbnail preview of the first page** using Cloudinary transformations.
  - Resumes are viewable directly in the dashboard, eliminating the need for manual downloads.
3. **Cloud Integration**
  - Resumes and thumbnails are stored in **Cloudinary**, ensuring **secure storage, fast retrieval, and CDN-based delivery**.
  - Each file upload generates a unique, shareable link for recruiters or peers.
4. **User Authentication**
  - Secure login and signup powered by **NextAuth.js v5**.
  - Supports both **Google OAuth** for quick onboarding and **custom credentials** for registered users (email/password).
  - JWT-based sessions ensure safe and persistent authentication.
5. **Dashboard Management**
  - Centralized dashboard where users can:
    - Upload new resumes.
    - Edit profile details.

- Delete outdated resumes or portfolios.
- Provides a smooth **CRUD (Create, Read, Update, Delete)** flow for managing career data.
- 6. **Export Options**
  - Users can **export their profile/portfolio as a styled PDF** using **@react-pdf/renderer**.
  - Exported PDFs maintain **clickable hyperlinks** for social links and portfolios.
  - Ensures consistency in **design across web and exported formats**.

## Technology Stack (Detailed)

### Frontend:

- **Next.js 15 & React:** Provides a modern, component-based architecture and server-side rendering for optimal performance.
- **Tailwind CSS:** Enables responsive and utility-first styling, allowing rapid UI customization.
- **ShadCN UI:** A set of reusable, accessible React components to build consistent interface elements.
- **Framer Motion:** Adds smooth, interactive animations to enhance user experience.

### Backend:

- **Next.js Server Actions:** Handles backend logic directly from frontend routes, enabling a seamless full-stack integration.
- **Node.js:** Powers server-side operations and API calls with efficiency and scalability.

### Database:

- **PostgreSQL:** Stores all user data, resumes, and portfolio metadata in a structured relational format.
- **Prisma ORM:** Provides a type-safe and efficient way to interact with the database, including complex queries.

### Authentication:

- **NextAuth.js v5:** Handles secure authentication flows.
  - Supports **Google OAuth** for instant signup/login.
  - Supports **custom credentials** for email/password-based login.
  - JWT-based session management ensures secure and persistent login.

### File Storage:

- **Cloudinary Integration:**
  - Stores PDFs and generated thumbnail images.
  - Provides optimized delivery through CDN, ensuring fast load times globally.
  - Supports transformations like generating first-page thumbnails automatically.

### Deployment:

- **Vercel:** Hosts both frontend and backend with serverless functions, ensuring **zero downtime**, **scalable infrastructure**, and easy continuous deployment from GitHub.
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## Development Timeline (Detailed)

1. **June 2025 – Project Planning & Setup:**
  - Defined project scope and goals for CareerStack.
  - Designed **database schema** to handle user profiles, resumes, and portfolio data.
  - Configured **NextAuth.js authentication** with OAuth and custom credentials.
  - Set up the initial **Next.js + Tailwind CSS project structure**.
2. **July 2025 – Feature Implementation:**
  - Built the **dynamic portfolio builder** with editable sections.
  - Developed **resume upload feature** with PDF validation and Cloudinary integration.
  - Implemented **thumbnail generation** for uploaded resumes.
  - Created the **user dashboard** with CRUD operations for resumes and profiles.
3. **August 2025 – PDF Export, Testing & Deployment:**
  - Integrated **@react-pdf/renderer** to export portfolios with hyperlinks intact.
  - Conducted **end-to-end testing** for responsiveness, file uploads, and authentication flows.
  - Deployed the fully functional application to **Vercel** for production use.
  - Prepared the platform for **future AI integrations** (RAG system + chatbot).

## Achievements & Impact (Detailed)

1. **Successful Deployment of SaaS-style Portfolio Builder**
  - CareerStack was successfully deployed as a fully functional **SaaS-style web application**, allowing users to create and share their portfolios online.
  - Provided **real-time editing and preview** features, making it easy for users to update their professional profiles.
2. **Enhanced Resume and Portfolio Management**
  - Users can **upload multiple PDF resumes**, view them in the dashboard, and generate **thumbnail previews** for a quick visual reference.
  - Portfolios can now be **exported as professional PDFs** with clickable links, increasing visibility and accessibility for recruiters.
3. **Scalable Architecture for Future Enhancements**
  - The project architecture was designed to **scale with increasing users and data**, supporting future additions like **premium subscriptions**, analytics, and AI-powered tools.
  - Leveraged **Cloudinary for file storage** and **Prisma with PostgreSQL** for reliable data management.
4. **Foundation for AI Integrations**
  - The platform lays the groundwork for **AI-powered features**, including:
    - **RAG (Retrieval Augmented Generation) system:** Retrieve user portfolio/resume data intelligently.
    - **Chatbot assistant:** Interactively answer queries related to user skills, projects, and achievements.

## 5. User Engagement and Productivity Gains

- By centralizing resume and portfolio management, users save time maintaining multiple files and formats.
  - Provides a **professional, interactive platform** that increases user engagement and helps users present themselves more effectively.
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## Future Scope (Detailed)

### 1. AI-Powered RAG System

- Integrate **vector embeddings and semantic search** to allow intelligent querying of user portfolios and resumes.
- Users or recruiters can ask natural language questions like:
  - “Show all projects involving React and Next.js.”
  - “List internships completed in 2025.”
- The system retrieves **contextually relevant data** from the stored user portfolio.

### 2. Chatbot Assistant

- A conversational AI assistant that can:
  - Explain user skills, achievements, and projects interactively.
  - Provide suggestions for improving portfolios or resumes.
  - Act as a **virtual career advisor** during interviews or portfolio reviews.

### 3. Analytics Dashboard

- Track **portfolio views, resume downloads, and recruiter engagement metrics**.
- Generate insights for users about which sections of their portfolio attract more attention.
- Suggest improvements using **AI-based recommendations** for content, layout, or skills.

### 4. Premium Features & Subscription Model

- Offer **advanced resume templates** and **customized portfolio themes**.
- Provide **AI-powered feedback** on resumes and portfolios.
- Analytics and detailed reporting for **premium users** to track engagement and recruiter interactions.

### 5. Long-Term Vision

- Transform CareerStack into a **complete career companion** combining portfolio management, AI guidance, and recruiter insights.
- Expand integrations with **LinkedIn, GitHub, and other professional platforms** for automated data syncing and updates.