

Smart Resume Builder - Project Report

Project Overview

Smart Resume Builder is a full-stack web application built using the MERN stack (MongoDB, Express.js, React.js, Node.js) with AI integration for resume suggestions. The project implements modern development practices and a responsive user interface.

Technical Stack

- **Backend**
 - Node.js & Express.js for server infrastructure
 - MongoDB for database management
 - JWT for authentication
 - PDFKit for PDF generation
 - A4F API for AI-powered suggestions
- **Frontend**
 - React with Vite for UI development
 - Tailwind CSS for styling
 - React Router for navigation
 - Axios for API calls

Features Implemented

1. **User Authentication**
 - Secure registration and login
 - JWT-based session management
 - Password encryption using bcrypt
2. **Resume Management**
 - CRUD operations for resumes
 - Multiple resume support
 - Real-time preview

- PDF export with multiple templates (Classic/Modern)

3. AI Integration

- Resume improvement suggestions
- Personalized feedback based on user input
- Integration with A4F API

4. PDF Export

- Multiple template options
- Professional formatting
- Custom styling options

Project Structure

A detailed project structure would typically be included here, outlining the directory and file organization.

API Endpoints

• Authentication

- POST /api/auth/register - User registration
- POST /api/auth/login - User login

• Resume Operations

- GET /api/resumes - Get all resumes
- POST /api/resumes - Create resume
- GET /api/resumes/:id - Get specific resume
- PUT /api/resumes/:id - Update resume
- DELETE /api/resumes/:id - Delete resume

• Special Features

- POST /api/suggestion - Get AI suggestions
- GET /api/pdf/:id - Export resume as PDF

Current Status

- Backend implementation complete
- Frontend components created
- API integration established
- PDF generation working
- AI suggestions functional

Future Enhancements

- Resume sharing functionality
- More template options
- Analytics dashboard
- Email notifications
- Resume version control

Installation & Setup

Instructions for setting up the project locally would be detailed in this section.

Environment Configuration

Required environment variables would be listed here, for example:

- MONGODB_URI
- JWT_SECRET
- A4F_API_KEY

Testing Status

- API endpoints tested via Postman
- User authentication working
- Resume CRUD operations verified
- PDF generation confirmed
- AI suggestions tested

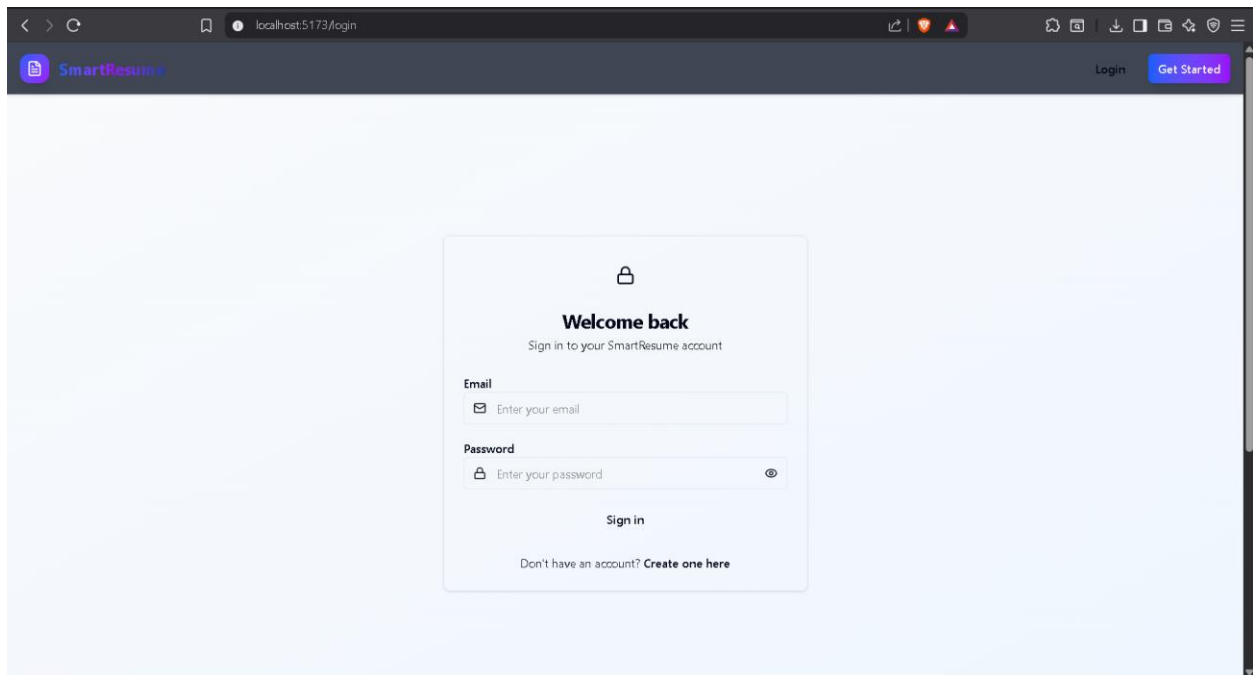
Deployment Readiness

- Backend APIs fully functional
- Frontend components implemented
- Environment variables configured
- Error handling implemented
- Documentation complete

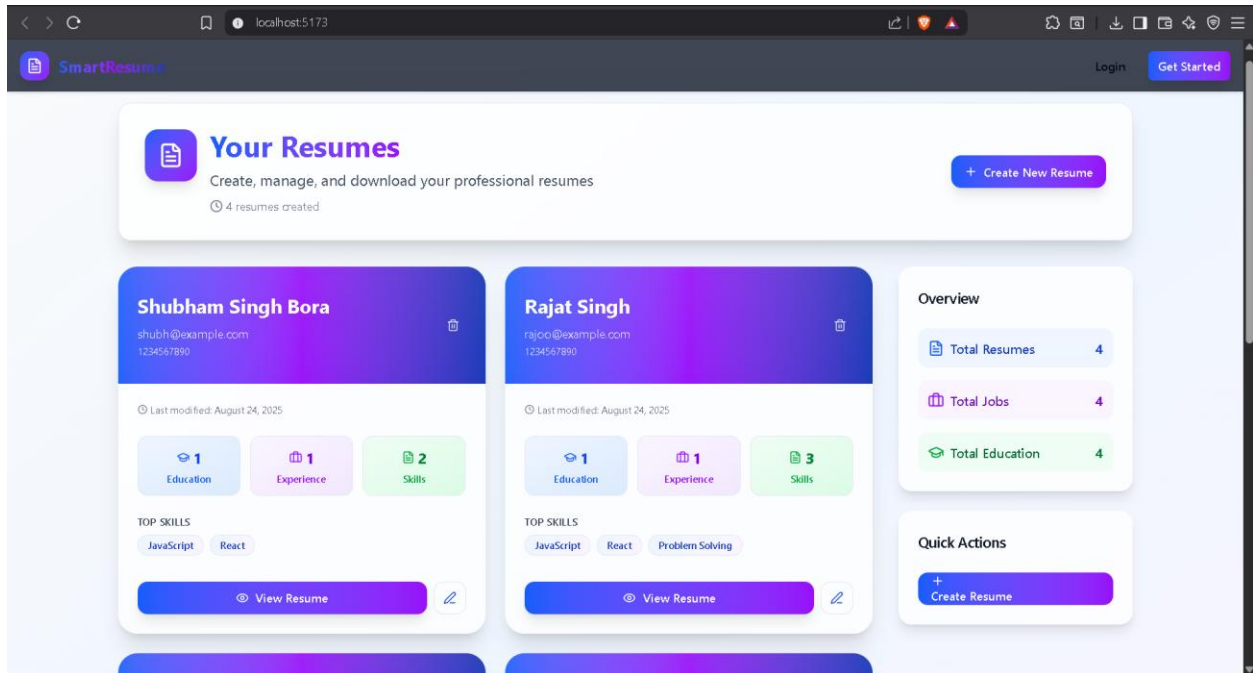
Screenshots

This section would typically feature visual representations of the application's key interfaces and functionalities. Below are examples of what would be included:

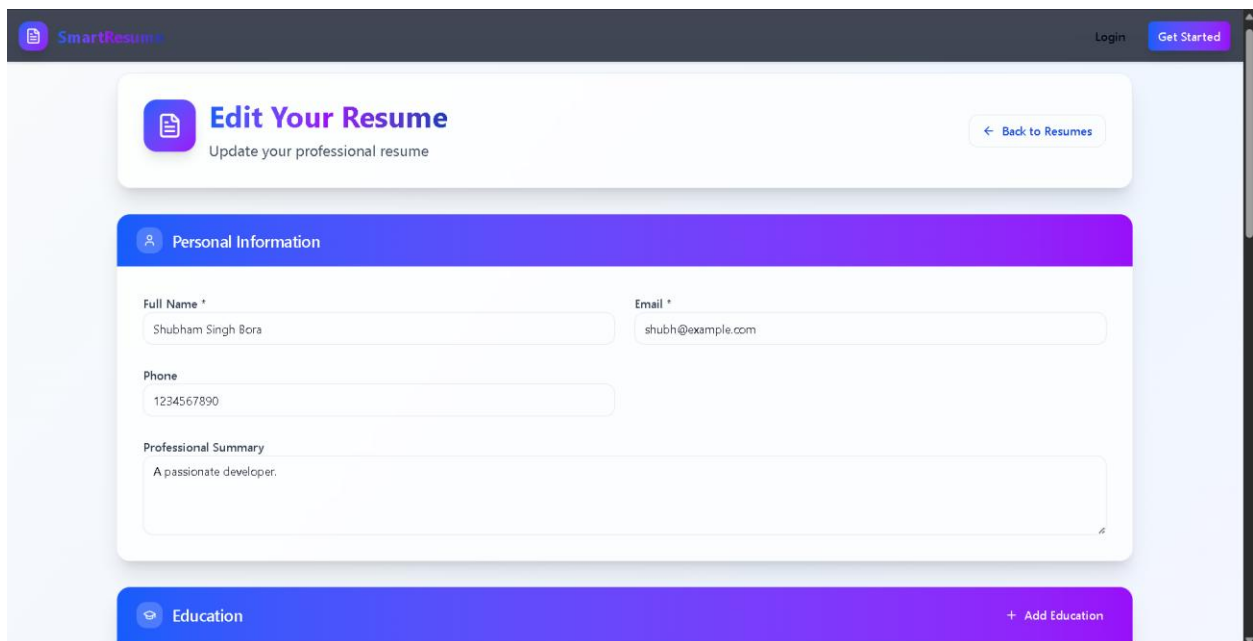
1. Login/Registration Page



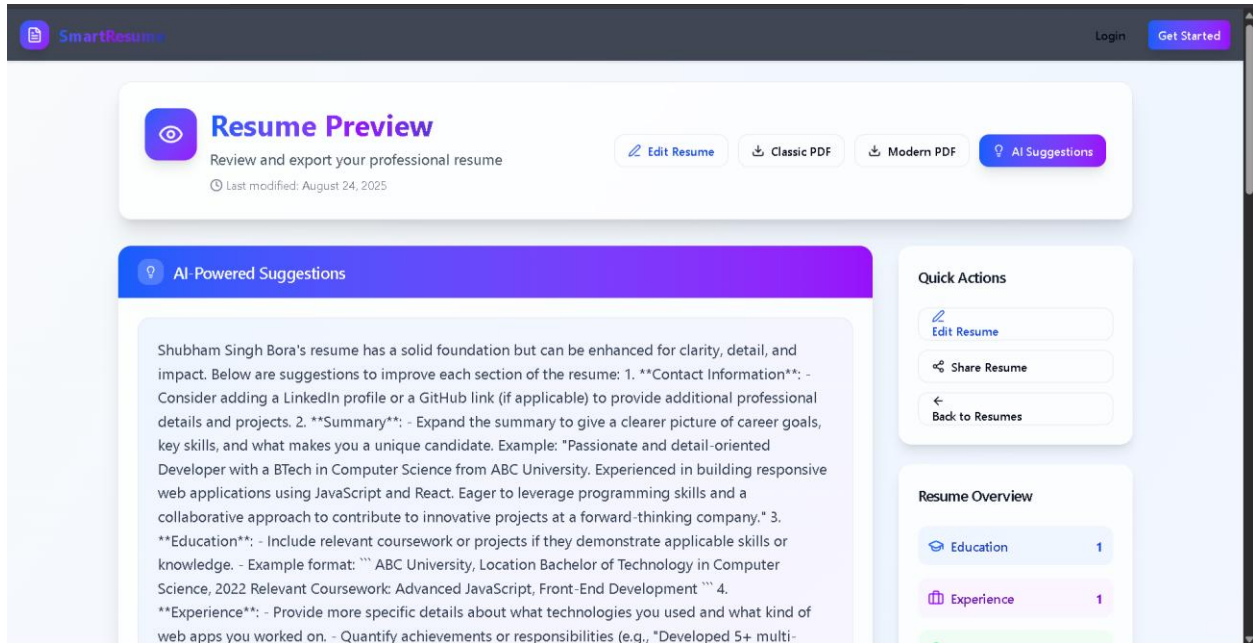
2. Resume Dashboard



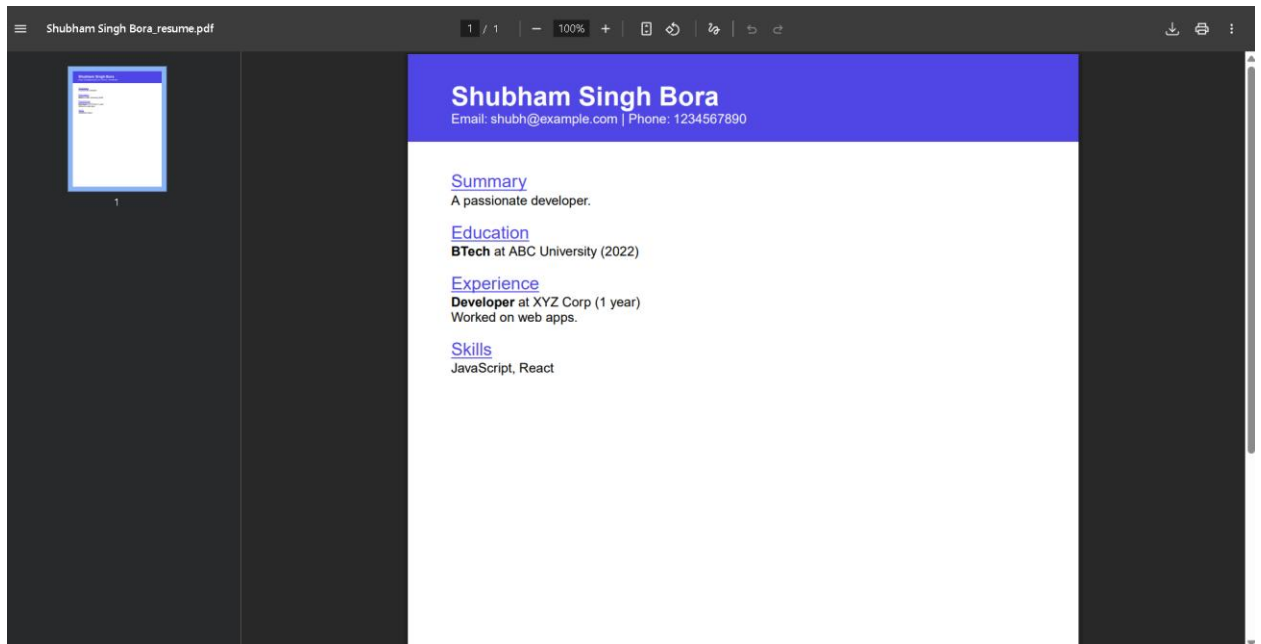
3. Resume Editor Interface



5. AI Suggestion Integration



6. PDF Export Options / Generated PDF Preview



This project demonstrates a comprehensive implementation of a modern web application with AI integration, focusing on user experience and practical functionality.

