CodeFolio User Manual

Student Portfolio Showcase Platform

Software Development Capstone @ GGC – Dr. B

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This project was developed as part of the SD Capstone course at GGC under Dr. B.

Table of Contents

1. Introduction

The Problem We Solve

To get a job today, students need to show employers what they can actually do, not just show them good grades. The best way to do that is with an online portfolio that showcases their projects and skills. But for most students, making one is a huge pain. They either have to pay for expensive website builders every month, which they can't afford, or they have to build a website from scratch, which is too technical and takes too much time.

This isn't fair. It means that talented students miss out on internships and jobs just because they don't have the money or coding skills to show off their work properly.

Our Solution: CodeFolio

CodeFolio is a free, easy-to-use platform designed specifically for students to create professional portfolios without any coding knowledge or monthly fees. Built by students, for students, CodeFolio makes it simple to showcase your projects, skills, and achievements in minutes—not hours.

Purpose and Intended Audience

CodeFolio is designed for:

- **College students** seeking internships and entry-level positions
- **Recent graduates** building their professional presence
- **Student developers** showcasing technical projects
- **Academic institutions** supporting student career development

Key Features Overview

- **Portfolio Builder:** Create and customize your professional portfolio with drag-and-drop ease
- **Project Showcase:** Display projects with images, descriptions, and links

- **Live Feed:** Share updates and engage with the student community
- **Discover Network:** Connect with other students and professionals
- **Verification Badges:** Earn credibility through student, portfolio, and certification verification
- **QR Business Cards:** Generate shareable QR codes linking to your portfolio
- **Resume Integration:** Upload and display your resume alongside projects

2. System Requirements

Hardware Requirements

- **Processor:** Any modern device (phone, tablet, or computer)
- **RAM:** 2GB minimum recommended
- **Storage:** 50MB for cached data
- **Internet:** Stable internet connection required

Software Requirements

Web Browser:

- Chrome 90+ (Recommended)
- Firefox 88+
- Safari 14+
- Edge 90+

Operating System:

- Windows 10/11
- macOS 10.15+
- iOS 14+
- Android 9+

JavaScript: Must be enabled

3. Installation Instructions

Web Application Access

CodeFolio is a web-based application—**no installation required!**

1. Open your preferred web browser
2. Navigate to: `[YOUR_DEPLOYMENT_URL]`
3. Bookmark the page for easy access

Mobile Access

iOS Users:

1. Open Safari and navigate to CodeFolio
2. Tap the Share button
3. Select "Add to Home Screen"
4. Tap "Add"

Android Users:

1. Open Chrome and navigate to CodeFolio
2. Tap the three-dot menu
3. Select "Add to Home Screen"
4. Tap "Add"

4. Getting Started

Creating Your Account

1. Click **"Sign Up"** on the homepage
2. Enter your email address and create a strong password

3. Click **"Create Account"**
4. Check your email for verification (if required)
5. Log in with your new credentials

First Login

When you first log in, you'll see:

- **Welcome message** with quick tips
- **Profile setup prompt** encouraging you to complete your profile
- **Empty portfolio** ready for your content
- **Live Feed** showing recent community activity

Understanding the Interface

Top Navigation Bar:

Menu Icon (☰): Access all navigation options

- My Profile
- Notifications
- Live Feed
- Discover Profiles
- Settings

Main Areas:

- **Portfolio Showcase:** Your projects and work samples
- **Live Feed:** Community posts and updates
- **Discover Profiles:** Find and connect with other students

5. Feature-by-Feature Guide

5.1 Building Your Portfolio

Setting Up Your Profile

1. Click the **Menu Icon (☰)**
2. Select **"My Profile"**
3. Click **"Edit Profile"**
4. Fill in your information:
   - **Profile Picture:** Upload a professional photo
   - **Banner Image:** Add a custom background
   - **Display Name:** Your preferred name
   - **Bio:** Brief professional summary (2-3 sentences)
   - **Location:** City, State/Country
5. Click **"Save"**

Adding Showcase Items

1. Go to **"My Profile"** → **"Edit Profile"**
2. Navigate to the **"Portfolio"** tab
3. Click **"Add Showcase Item"**
4. Choose item type:
   - **Image:** Screenshots, designs, photos
   - **Link:** GitHub repos, live projects, articles
   - **Document:** PDFs, presentations
5. Fill in details:
   - **Title:** Project name
   - **Description:** What you built and your role
   - **Content:** Upload file or paste URL
6. Click **"Add Item"**
7. **Reorder items** by dragging and dropping

Best Practices:

- Use high-quality images (1200px width recommended)
- Write clear, concise descriptions
- Include technologies used

- Link to live demos when possible

Adding Social Links & Contact Info

1. In **"Edit Profile"**, go to **"Contact & Social"** tab
2. Add your professional links:

   - **GitHub:** Your GitHub profile URL
   - **LinkedIn:** LinkedIn profile URL
   - **Website:** Personal website or blog
   - **Email:** Professional contact email
   - **Phone:** Optional phone number
   - **Location:** Current city/state

3. Click **"Save"**

These will display on your portfolio banner for easy contact.

Uploading Your Resume

1. Go to **"Edit Profile"** → **"Resume"** tab
2. Click **"Upload Resume"**
3. Select your PDF resume (max 10MB)
4. Click **"Upload"**
5. Toggle **"Show Resume"** to make it visible on your profile

Visitors can now view and download your resume from your portfolio.

5.2 Verification Badges

Build credibility with verification badges that prove your authenticity.

Student Verification

1. Go to **"My Profile"** → **"Verifications"**
2. Click **"Verify Student Status"**
3. Enter your **.edu email address**
4. Click **"Send Verification Email"**

5. Check your school email for verification link
6. Click the link to confirm
7. Your **Student Badge** appears on your profile

Supported Institutions:

- Georgia Gwinnett College (@GGC)
- Kennesaw State University (@KSU)
- [Other .edu domains supported]

Portfolio Verification

Automatically awarded when:

- You have **3+ showcase items**
- You have uploaded a **resume**

This badge shows employers you've put effort into your profile.

Certification Verification

1. Go to **"My Profile"** → **"Verifications"**
2. Click **"Upload Certification"**
3. Enter certification name and issuing organization
4. Upload proof document (certificate PDF/image)
5. Click **"Submit for Review"**
6. Wait for admin approval (typically 2-3 business days)
7. Badge appears after approval

5.3 QR Code Business Cards

Create scannable QR codes that link directly to your portfolio—perfect for career fairs and networking events.

Generating Your QR Code

1. Go to **"My Profile"**
2. Click the **QR Code Icon** near your profile picture

3. Your QR code generates automatically
4. Click **"Download PNG"** to save the image
5. Click **"Share"** to send via email or social media

Using Your QR Code

- **Print on business cards:** Add to physical cards
- **Add to resume:** Include in header/footer
- **Career fair table tents:** Display at events
- **Email signature:** Link in professional emails
- **LinkedIn profile:** Add to About section

5.4 Live Feed & Community

Share updates, projects, and achievements with the student community.

Creating a Post

1. Click **"Live Feed"** from the menu
2. Click **"Create Post"** button
3. Write your update (max 500 characters)
4. **Optional:** Add an image or link
5. Click **"Post"**

> **Post Ideas:**
> - Project launches
> - Internship offers
> - Learning milestones
> - Tech tips and resources
> - Event announcements

Engaging with Posts

- **Like:** Click the heart icon
- **Comment:** Click comment icon and write your response

- **Share:** Copy post link to share externally

Feed Navigation

Three tabs help you discover content:

- **All Posts:** Chronological feed of all community activity
- **Trending:** Most engaging posts from the past week
- **Your Network:** Posts from your connections only

5.5 Discover & Connect

Find other students, build your professional network, and discover opportunities.

Browsing Profiles

1. Click **"Discover Profiles"** from the menu
2. Scroll through featured sections:
   - **Trending Portfolios:** Most active users
   - **Recommended for You:** Based on your connections
   - **All Portfolios:** Complete directory

Search for Specific People

1. Type name, school, or skill in search bar at top
2. Results filter in real-time
3. Click any profile card to view full portfolio

Connecting with Others

1. Visit a user's profile
2. Click **"Connect"** button
3. Request is sent to the user
4. When they accept, you become connections
5. Their posts appear in **"Your Network"** feed

Managing Connections

View connection requests in **Notifications**:

- **Accept:** Add them to your network
- **Decline:** Ignore the request

5.6 Notifications

Stay updated on network activity, post engagement, and connections.

Viewing Notifications

1. Click **Notifications** from the menu
2. See recent activity:
   - Connection requests
   - Post likes
   - Comment replies
   - Verification updates

Notification Types

Icon	Type	Action
👤	Connection Request	Accept or decline
❤️	Post Like	View post
💬	Comment Reply	View comment thread
✓	Verification	Badge awarded

5.7 Theme & Appearance

Customize your viewing experience with light or dark mode.

Changing Theme

Your theme automatically matches your device's system settings. To override:

1. Your browser/device system preferences control the theme

2. Change your OS to light/dark mode
3. CodeFolio updates automatically

> **Tip:** Most devices have automatic theme switching based on time of day.

6. Troubleshooting & FAQs

Common Issues

Q: My profile picture won't upload

A: Check that:

- File is JPG, PNG, or WebP format
- Image is under 5MB
- You have stable internet connection
- Try clearing browser cache and retry

Q: I'm not receiving verification emails

A:

- Check spam/junk folder
- Ensure you used a valid .edu email
- Wait 5-10 minutes for delivery
- Contact support if issue persists

Q: My showcase items aren't saving

A:

- Ensure all required fields are filled
- Check file sizes (max 10MB per item)
- Try using a different browser
- Clear cache and cookies

Q: Notifications stay dark in light mode

A:

- Refresh the page after changing system theme
- Clear browser cache
- Check browser theme settings
- Try hard refresh (Ctrl+Shift+R or Cmd+Shift+R)

Q: Can't see my own posts in "Posts" tab

A:

- Posts may take a few seconds to sync
- Refresh your profile page
- Check that you posted from the Live Feed (not Profile)
- Contact support if posts are missing after 5 minutes

Performance Tips

- **Optimize images:** Compress before uploading (use tools like TinyPNG)
- **Limit showcase items:** 5-10 items load faster than 20+
- **Clear browser cache:** Monthly clearing improves speed
- **Update browser:** Use the latest version for best performance
- **Stable connection:** Upload large files on WiFi, not mobile data

Browser-Specific Issues

Safari (iOS):

- Enable JavaScript in Settings → Safari
- Allow cookies for CodeFolio

Chrome (Android):

- Ensure "Lite Mode" is disabled
- Allow popups for QR code downloads

7. Future Developer Guidance

Project Overview

CodeFolio is a full-stack web application designed to democratize student portfolio creation. Built with modern web technologies, it prioritizes ease of use, scalability, and real-time collaboration.

Technology Stack

Frontend:

- **Framework:** Next.js 16 (App Router)
- **Language:** TypeScript
- **Styling:** Tailwind CSS v4
- **UI Components:** shadcn/ui
- **State Management:** React Context + SWR
- **Authentication:** Firebase Auth

Backend:

- **Database:** Firebase Firestore
- **Storage:** Vercel Blob Storage
- **Authentication:** Firebase Authentication
- **Hosting:** Vercel

Development Tools:

- **Package Manager:** npm/yarn
- **Linting:** ESLint
- **Formatting:** Prettier (implied by Next.js conventions)

Architecture Overview

```
/app
  /page.tsx                  # Main landing page with Live Feed
  /login/page.tsx            # Authentication page
  /profile/[id]/page.tsx     # Dynamic profile pages
  /post/[id]/page.tsx        # Individual post view
  /layout.tsx                # Root layout with theme provider

/components
  /ui/                       # shadcn/ui components
  /live-feed.tsx             # Live feed with tabs
  /profile-showcase.tsx      # Portfolio display and editor
  /profile-search.tsx        # User discovery
  /notifications-panel.tsx   # Notifications
  /verification-manager.tsx  # Badge system
  /qr-business-card.tsx      # QR code generator

/lib
  /firestore.ts              # Firebase operations
  /utils.ts                  # Utility functions

/hooks
  /use-auth.ts               # Authentication hook
  /use-profile.ts            # Profile management
  /use-mobile.tsx            # Responsive design

/firestore.rules             # Security rules
```

Key Modules & Responsibilities

Authentication (`/hooks/use-auth.ts`)

- Firebase Auth integration
- User session management
- Login/logout functionality

Profile Management (`/lib/firestore.ts`)

- CRUD operations for user profiles
- Showcase item management
- Resume upload/storage
- Social links integration

Verification System (`/components/verification-manager.tsx`)

- Student email verification (.edu domains)
- Portfolio completion checking (auto-badge)
- Certification upload and admin review

Live Feed (`/components/live-feed.tsx`)

- Real-time post creation
- Trending algorithm (engagement-based)
- Network filtering (connections only)
- Infinite scroll pagination

Connection System (`/lib/firestore.ts`)

- Connection request workflow
- Mutual connection tracking
- Recommended profiles algorithm

QR Code Generation (`/components/qr-business-card.tsx`)

- Canvas-based QR rendering
- PNG download functionality
- Shareable URLs

Setting Up Development Environment

Prerequisites

```
Node.js 18+
npm or yarn
Firebase account
Vercel account (optional, for deployment)
```

Installation Steps

1. Clone the repository

```
git clone [repository-url]
cd codefolio
```

2. Install dependencies

```
npm install
```

3. Configure environment variables

Create `.env.local` file:

```
NEXT_PUBLIC_FIREBASE_API_KEY=your_api_key
NEXT_PUBLIC_FIREBASE_AUTH_DOMAIN=your_auth_domain
NEXT_PUBLIC_FIREBASE_PROJECT_ID=your_project_id
NEXT_PUBLIC_FIREBASE_STORAGE_BUCKET=your_storage_bucket
NEXT_PUBLIC_FIREBASE_MESSAGING_SENDER_ID=your_sender_id
NEXT_PUBLIC_FIREBASE_APP_ID=your_app_id
```

4. Set up Firestore

- Deploy `firestore.rules` to your Firebase project
- Create indexes as needed (Firestore will prompt during development)

5. Run development server

```
npm run dev
```

Open http://localhost:3000

Firestore Security Rules

Key rules to understand:

```
// Users can read/write own profile
allow read, update: if isOwner(userId);

// Posts are public read, authenticated write
allow read: if true;
allow create: if isAuthenticated();

// Notifications are private to recipient
```

```
allow read: if resource.data.toUserId == request.auth.uid;


// Connections require mutual consent
allow create: if request.resource.data.userId == request.auth.uid;
```

Known Issues & Technical Debt

1. Connection Sync Permissions

- **Issue:** Firestore rules prevent updating other user's connection arrays
- **Workaround:** `syncAcceptedConnections` function runs on user login
- **Fix Needed:** Implement Cloud Functions for server-side connection updates

2. Firebase Initialization in v0 Preview

- **Issue:** Firestore may fail to initialize in certain environments
- **Workaround:** Debug warnings logged, graceful fallbacks
- **Note:** Works properly when deployed to Vercel

3. Image Optimization

- **Issue:** Large images slow down portfolio load times
- **Current:** Client-side compression recommended
- **Fix Needed:** Implement server-side image optimization

4. Real-time Updates

- **Issue:** Live Feed requires manual refresh to see new posts
- **Current:** Auto-refresh every 30 seconds
- **Fix Needed:** Implement Firestore real-time listeners

5. Notification Count Race Conditions

- **Issue:** Counts may briefly show incorrect values during rapid updates
- **Workaround:** Throttled refresh intervals
- **Fix Needed:** Use Firestore aggregation queries (when available)

Suggestions for Future Improvements

Short-Term (Next Sprint)

- **Email Notifications:** Send digest emails for connection requests
- **Advanced Search:** Filter profiles by school, major, graduation year
- **Post Reactions:** Add more reaction types beyond likes
- **Profile Views Analytics:** Show who viewed your portfolio

Medium-Term (Next Semester)

- **Messaging System:** Direct messages between connections
- **Groups/Communities:** Create school or major-specific groups
- **Events Calendar:** Post campus career fairs, hackathons
- **Endorsements:** Let connections endorse skills

Long-Term (Post-Graduation)

- **Job Board Integration:** Partner with employers for direct job postings
- **AI Resume Review:** Automated feedback on resumes
- **Portfolio Templates:** Pre-designed themes for different industries
- **Video Introductions:** 30-second intro videos on profiles
- **Analytics Dashboard:** Track portfolio views, engagement metrics

Contributing Guidelines

1. **Branch Naming:** `feature/description` or `fix/description`
2. **Commit Messages:** Use conventional commits (feat:, fix:, docs:)
3. **Code Style:** Follow existing TypeScript/React patterns
4. **Testing:** Test on both mobile and desktop before PR
5. **Documentation:** Update this manual for significant feature changes

Database Schema Reference

Users Collection (`/users/{userId}`)

```
{
  uid: string;
  email: string;
  profileName: string;
  bio?: string;
  profilePicture?: string;
  bannerImage?: string;
  location?: string;
  connections: string[];
  connectionCount: number;
  showcaseItems: ShowcaseItem[];
  resume?: string;
  githubUrl?: string;
  linkedinUrl?: string;
  websiteUrl?: string;
  contactEmail?: string;
  phoneNumber?: string;
  verifications?: VerificationBadge[];
  isAdmin?: boolean;
  createdAt: Timestamp;
  updatedAt: Timestamp;
}
```

Posts Collection (`/posts/{postId}`)

```
{
  userId: string;
  userName: string;
  userProfilePicture?: string;
  content: string;
  imageUrl?: string;
  likes: string[];
  likeCount: number;
  commentCount: number;
  viewCount: number;
  createdAt: Timestamp;
}
```

8. Support & Contact Information

Getting Help

For Users:

- **Email:** [support@codefolio.app]
- **GitHub Issues:** [repository-url/issues]
- **Community Forum:** [Coming Soon]

For Developers:

- **Technical Documentation:** See `/docs` folder in repository
- **API Reference:** [Coming Soon]
- **Discord Server:** [Coming Soon]

Reporting Bugs

1. Check existing issues on GitHub
2. Create new issue with:
   - Clear description
   - Steps to reproduce
   - Screenshots (if applicable)
   - Browser/device information

Feature Requests

We love hearing your ideas! Submit feature requests via:

- GitHub Discussions
- Email: CodeFolioGGC@gmail.com

Version Information

Current Version:	1.0.0
Last Updated:	August 2025

Manual Version:	1.0

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- Dr. B and the GGC Software Development program
- All beta testers who provided feedback
- The open-source community for amazing tools
- Every student who inspired this project

> **Remember:** *Your portfolio is your superpower. Show the world what you can do.*