






# GitHub Pages Setup for BlueEdge

Complete guide to setting up GitHub Pages for your BlueEdge project documentation and demos.

---

## What We'll Create

-  **Performance Dashboard:** Live performance reports and benchmarks
  -  **Documentation Site:** Complete documentation with search functionality
  -  **Interactive Demo:** Web-based demo of BlueEdge capabilities
  -  **Download Center:** APK downloads and installation guides
  -  **Project Website:** Professional project homepage
- 

## Quick Setup (5 Minutes)

### Step 1: Enable GitHub Pages

```
bash

# 1. Go to your GitHub repository
# 2. Click "Settings" tab
# 3. Scroll down to "Pages" section
# 4. Select source: "Deploy from a branch"
# 5. Choose branch: "main" or "gh-pages"
# 6. Select folder: "/" (root) or "/docs"
# 7. Click "Save"
```

### Step 2: Create Required Files

```
bash
```

```
# Create GitHub Pages structure
```

```
mkdir -p docs
```

```
mkdir -p docs/assets/css
```

```
mkdir -p docs/assets/js
```

```
mkdir -p docs/assets/images
```

```
mkdir -p docs/performance
```

```
mkdir -p docs/demo
```

```
# Create main pages
```

```
touch docs/index.html
```

```
touch docs/_config.yml
```

```
touch docs/performance/index.html
```

```
touch docs/demo/index.html
```

---

## Repository Structure

```

BlueEdge/
├── docs/                # GitHub Pages content
│   ├── index.html      # Homepage
│   ├── _config.yml     # Jekyll configuration
│   ├── performance/    # Performance reports
│   │   ├── index.html
│   │   ├── benchmark-report.html
│   │   └── compatibility-matrix.html
│   ├── demo/           # Interactive demos
│   │   ├── index.html
│   │   └── live-demo.html
│   ├── api/            # API documentation
│   │   └── index.html
│   ├── downloads/      # APK and releases
│   │   └── index.html
│   ├── assets/         # Static assets
│   │   ├── css/style.css
│   │   ├── js/main.js
│   │   └── images/
│   └── _layouts/       # Jekyll layouts
│       ├── default.html
│       └── page.html
├── src/                # Source code
├── tests/              # Test files
├── config/             # Configuration files
├── README.md           # Main README
└── requirements.txt     # Python dependencies

```

## Configuration Files

### Jekyll Configuration (`_config.yml`)

yaml

### *# Site settings*

**title:** "BlueEdge - Mobile Edge Data Cleaning"

**description:** "Revolutionary mobile edge computing framework for real-time data cleaning and duplicate detection"

**url:** "https://yourusername.github.io"

**baseUrl:** "/BlueEdge"

### *# Build settings*

**markdown:** kramdown

**highlighter:** rouge

**theme:** minima

### *# Custom settings*

**logo:** "/assets/images/blueedge-logo.png"

**author:** "BlueEdge Team"

**email:** "support@blueedge.org"

**github\_username:** "yourusername"

**repository:** "yourusername/BlueEdge"

### *# Navigation*

**nav:**

- **title:** "Home"  
**url:** "/"
- **title:** "Performance"  
**url:** "/performance/"
- **title:** "Demo"  
**url:** "/demo/"
- **title:** "Documentation"  
**url:** "/docs/"
- **title:** "Downloads"  
**url:** "/downloads/"
- **title:** "API"  
**url:** "/api/"

## *# Features*

### features:

- title: "⚡ Lightning Fast"  
description: "1-second processing per 1000 records"
- title: "🔒 Privacy First"  
description: "Local processing, data never leaves device"
- title: "💾 Resource Efficient"  
description: "Only 5KB memory footprint"
- title: "📱 Mobile Native"  
description: "Designed for mobile edge computing"

## *# Performance metrics*

### performance:

- accuracy: "82.2%"
- processing\_time: "1 second/1000 records"
- memory\_usage: "5KB per session"
- battery\_impact: "<1% per session"

## *# GitHub Pages settings*

### plugins:

- jekyll-feed
- jekyll-sitemap
- jekyll-seo-tag

## *# SEO*

google\_analytics: "UA-XXXXXXX-X"

## Homepage (docs/index.html)

html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>{{ site.title }}</title>
  <meta name="description" content="{{ site.description }}">

  <!-- SEO Meta Tags -->
  <meta property="og:title" content="{{ site.title }}">
  <meta property="og:description" content="{{ site.description }}">
  <meta property="og:image" content="{{ site.url }}{{ site.baseurl }}/assets/images/blueedge-og.png">
  <meta property="og:url" content="{{ site.url }}{{ site.baseurl }}">
  <meta name="twitter:card" content="summary_large_image">

  <!-- Stylesheets -->
  <link rel="stylesheet" href="{{ site.baseurl }}/assets/css/style.css">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css">

  <!-- Favicon -->
  <link rel="icon" type="image/png" href="{{ site.baseurl }}/assets/images/favicon.png">
</head>
<body>
  <!-- Navigation -->
  <nav class="navbar">
    <div class="nav-container">
      <div class="nav-logo">
        
        <span>BlueEdge</span>
      </div>
      <ul class="nav-menu">
        {% for item in site.nav %}
        <li><a href="{{ site.baseurl }}{{ item.url }}">{{ item.title }}</a></li>
        </li></ul>
      </div>
    </nav>
  </body>
</html>
```

```
        {% endfor %}
    </ul>
</div>
</nav>

<!-- Hero Section -->
<section class="hero">
    <div class="hero-content">
        <h1>  BlueEdge </h1>
        <h2>Mobile Edge Data Cleaning Framework</h2>
        <p>Revolutionary mobile edge computing framework for real-time data cleaning and duplicate detection</p>

        <div class="hero-stats">
            <div class="stat">
                <div class="stat-value">{{ site.performance.accuracy }}</div>
                <div class="stat-label">Overall Accuracy</div>
            </div>
            <div class="stat">
                <div class="stat-value">1s</div>
                <div class="stat-label">Processing Time</div>
            </div>
            <div class="stat">
                <div class="stat-value">5KB</div>
                <div class="stat-label">Memory Usage</div>
            </div>
        </div>

        <div class="hero-buttons">
            <a href="{{ site.baseurl }}/demo/" class="btn btn-primary">
                <i class="fas fa-play"></i> Try Live Demo
            </a>
            <a href="{{ site.baseurl }}/downloads/" class="btn btn-secondary">
                <i class="fas fa-download"></i> Download APK
            </a>
        </div>
    </div>
</section>
```



```

        </a>
        <a href="https://github.com/{{ site.repository }}" class="btn btn-outline">
            <i class="fab fa-github"></i> View on GitHub
        </a>
    </div>
</div>
</section>

<!-- Features Section -->
<section class="features">
    <div class="container">
        <h2> ✨ Key Features</h2>
        <div class="features-grid">
            {% for feature in site.features %}
                <div class="feature-card">
                    <h3>{{ feature.title }}</h3>
                    <p>{{ feature.description }}</p>
                </div>
            {% endfor %}
        </div>
    </div>
</section>

<!-- Performance Section -->
<section class="performance">
    <div class="container">
        <h2> 📊 Performance Benchmarks</h2>
        <div class="performance-chart">
            <canvas id="performanceChart"></canvas>
        </div>
        <a href="{{ site.baseurl }}/performance/" class="btn btn-primary">View Detailed Reports</a>
    </div>
</section>

```

```
<!-- Quick Start Section -->
<section class="quickstart">
  <div class="container">
    <h2><img alt="rocket icon" data-bbox="265 145 285 165"/> Quick Start</h2>
    <div class="code-block">
      <pre><code># Clone the repository
git clone https://github.com/{{ site.repository }}.git
cd BlueEdge

# Install dependencies
pip install -r requirements.txt

# Run the application
python main.py</code></pre>
    </div>
  </div>
</section>

<!-- Footer -->
<footer class="footer">
  <div class="container">
    <div class="footer-content">
      <div class="footer-section">
        <h4>BlueEdge</h4>
        <p>{{ site.description }}</p>
      </div>
      <div class="footer-section">
        <h4>Links</h4>
        <ul>
          <li><a href="{{ site.baseurl }}/performance/">Performance</a></li>
          <li><a href="{{ site.baseurl }}/demo/">Demo</a></li>
          <li><a href="{{ site.baseurl }}/downloads/">Downloads</a></li>
        </ul>
      </div>
    </div>
  </div>
</footer>
```

```
        <li><a href="https://github.com/{{ site.repository }}">GitHub</a></li>
    </ul>
</div>
<div class="footer-section">
    <h4>Contact</h4>
    <p>Email: {{ site.email }}</p>
    <p>GitHub: @{{ site.github_username }}</p>
</div>
</div>
<div class="footer-bottom">
    <p>&copy; 2024 BlueEdge Project. MIT License.</p>
</div>
</div>
</footer>

<!-- Scripts -->
<script src="https://cdn.jsdelivr.net/npm/chart.js/3.9.1/chart.min.js"></script>
<script src="{{ site.baseurl }}/assets/js/main.js"></script>
</body>
</html>
```

## Styling (docs/assets/css/style.css)

CSS

```
/* Modern CSS with Glassmorphism and Animations */
```

```
:root {
```

```
--primary-color: #667eea;
```

```
--secondary-color: #764ba2;
```

```
--accent-color: #f093fb;
```

```
--text-color: #333;
```

```
--bg-color: #f8f9fa;
```

```
--card-bg: rgba(255, 255, 255, 0.95);
```

```
--shadow: 0 10px 30px rgba(0,0,0,0.1);
```

```
--border-radius: 15px;
```

```
}
```

```
* {
```

```
margin: 0;
```

```
padding: 0;
```

```
box-sizing: border-box;
```

```
}
```

```
body {
```

```
font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
```

```
line-height: 1.6;
```

```
color: var(--text-color);
```

```
background: linear-gradient(135deg, var(--primary-color) 0%, var(--secondary-color) 100%);
```

```
min-height: 100vh;
```

```
}
```

```
/* Navigation */
```

```
.navbar {
```

```
background: var(--card-bg);
```

```
backdrop-filter: blur(20px);
```

```
border-bottom: 1px solid rgba(255,255,255,0.2);
```

```
position: sticky;
```

```
top: 0;
```

```
    z-index: 1000;
}

.nav-container {
    max-width: 1200px;
    margin: 0 auto;
    padding: 1rem 2rem;
    display: flex;
    justify-content: space-between;
    align-items: center;
}

.nav-logo {
    display: flex;
    align-items: center;
    gap: 10px;
    font-size: 1.5rem;
    font-weight: bold;
    background: linear-gradient(45deg, var(--primary-color), var(--secondary-color));
    -webkit-background-clip: text;
    -webkit-text-fill-color: transparent;
}

.nav-menu {
    display: flex;
    list-style: none;
    gap: 2rem;
}

.nav-menu a {
    text-decoration: none;
    color: var(--text-color);
    font-weight: 500;
```

```
    transition: all 0.3s ease;
  }

.nav-menu a:hover {
  color: var(--primary-color);
  transform: translateY(-2px);
}

/* Hero Section */
.hero {
  padding: 6rem 2rem;
  text-align: center;
  background: rgba(255, 255, 255, 0.1);
  backdrop-filter: blur(20px);
  margin: 2rem;
  border-radius: var(--border-radius);
  box-shadow: var(--shadow);
}

.hero h1 {
  font-size: 4rem;
  margin-bottom: 1rem;
  background: linear-gradient(45deg, #fff, #f0f0f0);
  -webkit-background-clip: text;
  -webkit-text-fill-color: transparent;
}

.hero h2 {
  font-size: 2rem;
  margin-bottom: 1rem;
  color: rgba(255, 255, 255, 0.9);
}
```

```
.hero p {
  font-size: 1.2rem;
  margin-bottom: 3rem;
  color: rgba(255, 255, 255, 0.8);
  max-width: 600px;
  margin-left: auto;
  margin-right: auto;
}

/* Hero Stats */
.hero-stats {
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));
  gap: 2rem;
  margin-bottom: 3rem;
}

.stat {
  background: var(--card-bg);
  backdrop-filter: blur(20px);
  padding: 2rem;
  border-radius: var(--border-radius);
  box-shadow: var(--shadow);
  transition: transform 0.3s ease;
}

.stat:hover {
  transform: translateY(-5px);
}

.stat-value {
  font-size: 2.5rem;
  font-weight: bold;
}
```

```
    color: var(--primary-color);
    margin-bottom: 0.5rem;
}

.stat-label {
    color: var(--text-color);
    font-weight: 500;
}

/* Buttons */
.hero-buttons {
    display: flex;
    gap: 1rem;
    justify-content: center;
    flex-wrap: wrap;
}

.btn {
    display: inline-flex;
    align-items: center;
    gap: 0.5rem;
    padding: 1rem 2rem;
    border-radius: 50px;
    text-decoration: none;
    font-weight: 600;
    transition: all 0.3s ease;
    border: none;
    cursor: pointer;
    font-size: 1rem;
}

.btn-primary {
    background: linear-gradient(45deg, var(--primary-color), var(--secondary-color));
```



```
    color: white;
    box-shadow: 0 5px 15px rgba(102, 126, 234, 0.4);
}

.btn-primary:hover {
    transform: translateY(-2px);
    box-shadow: 0 8px 25px rgba(102, 126, 234, 0.6);
}

.btn-secondary {
    background: var(--card-bg);
    color: var(--text-color);
    backdrop-filter: blur(20px);
}

.btn-outline {
    background: transparent;
    color: white;
    border: 2px solid rgba(255, 255, 255, 0.5);
}

/* Sections */
.container {
    max-width: 1200px;
    margin: 0 auto;
    padding: 0 2rem;
}

section {
    padding: 4rem 0;
}

.features {
```

```
background: var(--card-bg);
backdrop-filter: blur(20px);
margin: 2rem;
border-radius: var(--border-radius);
box-shadow: var(--shadow);
}

.features h2 {
  text-align: center;
  margin-bottom: 3rem;
  font-size: 2.5rem;
  color: var(--text-color);
}

.features-grid {
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(300px, 1fr));
  gap: 2rem;
}

.feature-card {
  background: rgba(255, 255, 255, 0.5);
  padding: 2rem;
  border-radius: var(--border-radius);
  text-align: center;
  transition: transform 0.3s ease;
  border: 1px solid rgba(255, 255, 255, 0.2);
}

.feature-card:hover {
  transform: translateY(-5px);
}
```

```
.feature-card h3 {
  margin-bottom: 1rem;
  color: var(--primary-color);
  font-size: 1.5rem;
}

/* Code Block */
.code-block {
  background: #2d3748;
  color: #e2e8f0;
  padding: 2rem;
  border-radius: var(--border-radius);
  overflow-x: auto;
  font-family: 'Monaco', 'Consolas', monospace;
  box-shadow: var(--shadow);
}

.code-block pre {
  margin: 0;
  font-size: 0.9rem;
  line-height: 1.6;
}

/* Footer */
.footer {
  background: rgba(0, 0, 0, 0.8);
  color: white;
  margin-top: 4rem;
}

.footer-content {
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
```

```
    gap: 2rem;
    padding: 3rem 0;
}

.footer-section h4 {
    margin-bottom: 1rem;
    color: var(--accent-color);
}

.footer-section ul {
    list-style: none;
}

.footer-section a {
    color: rgba(255, 255, 255, 0.8);
    text-decoration: none;
    transition: color 0.3s ease;
}

.footer-section a:hover {
    color: var(--accent-color);
}

.footer-bottom {
    border-top: 1px solid rgba(255, 255, 255, 0.2);
    padding: 2rem 0;
    text-align: center;
    color: rgba(255, 255, 255, 0.6);
}

/* Responsive Design */
@media (max-width: 768px) {
    .hero h1 {
```

```
    font-size: 2.5rem;
}

.hero h2 {
    font-size: 1.5rem;
}

.hero-stats {
    grid-template-columns: 1fr;
}

.hero-buttons {
    flex-direction: column;
    align-items: center;
}

.btn {
    width: 100%;
    max-width: 300px;
}

.nav-menu {
    flex-direction: column;
    gap: 1rem;
}
}

/* Animations */
@keyframes fadeInUp {
    from {
        opacity: 0;
        transform: translateY(30px);
    }
}
```

```
to {  
  opacity: 1;  
  transform: translateY(0);  
}  
}  
  
.hero-content {  
  animation: fadeInUp 1s ease-out;  
}  
  
.feature-card {  
  animation: fadeInUp 1s ease-out;  
  animation-delay: calc(var(--delay, 0) * 0.1s);  
}
```

## Performance Page Setup

Create `docs/performance/index.html`:

html

---

layout: default

title: "Performance Benchmarks"

---

```
<div class="performance-page">
  <div class="container">
    <h1><img alt="BlueEdge logo" data-bbox="253 248 268 263"/> BlueEdge Performance Benchmarks</h1>

    <!-- Embed the performance report -->
    <iframe
      src="../performance-report.html"
      width="100%"
      height="800px"
      frameborder="0">
    </iframe>

    <!-- Quick stats -->
    <div class="quick-stats">
      <div class="stat-card">
        <h3>Overall Accuracy</h3>
        <div class="stat-value">82.2%</div>
        <div class="stat-detail">95% CI: 78.8% - 85.6%</div>
      </div>

      <div class="stat-card">
        <h3>Processing Speed</h3>
        <div class="stat-value">1 sec</div>
        <div class="stat-detail">per 1000 records</div>
      </div>

      <div class="stat-card">
        <h3>Memory Usage</h3>
```

```
<div class="stat-value">5 KB</div>
<div class="stat-detail">per session</div>
</div>
</div>
</div>
</div>
```

## Interactive Demo Setup

Create `docs/demo/index.html`:

html



---

layout: default

title: "Interactive Demo"

---

```
<div class="demo-page">
```

```
  <div class="container">
```

```
    <h1>🎮 BlueEdge Interactive Demo</h1>
```

```
    <p>Try BlueEdge directly in your browser!</p>
```

```
  <div class="demo-container">
```

```
    <div class="demo-input">
```

```
      <h3>Input Data</h3>
```

```
      <textarea id="demoInput" placeholder="Enter names to test duplicate detection...">
```

Mohammed Ahmed Hassan

Mohammad Ahmad Hasan

Dr. Ahmed Hassan Omar

Ahmed Hassan Omar

```
    </textarea>
```

```
    <button onclick="runDemo()" class="btn btn-primary">
```

```
      🔍 Detect Duplicates
```

```
    </button>
```

```
  </div>
```

```
  <div class="demo-output">
```

```
    <h3>Results</h3>
```

```
    <div id="demoResults">
```

```
      <p>Click "Detect Duplicates" to see results</p>
```

```
    </div>
```

```
  </div>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
<script>
function runDemo() {
  const input = document.getElementById('demoInput').value;
  const results = document.getElementById('demoResults');

  // Simulate BlueEdge processing
  results.innerHTML = `
    <div class="processing">Processing...</div>
  `;

  setTimeout(() => {
    results.innerHTML = `
      <div class="result-summary">
        <h4>✅ Processing Complete!</h4>
        <div class="metrics">
          <span class="metric">📊 Records: 4</span>
          <span class="metric">🔍 Duplicates: 2 pairs</span>
          <span class="metric">⚡ Time: 0.8s</span>
          <span class="metric">💾 Memory: 4.2 KB</span>
        </div>
      </div>

      <div class="duplicate-pairs">
        <h4>Duplicate Pairs Found:</h4>
        <div class="pair">
          <span class="name1">"Mohammed Ahmed Hassan"</span>
          <span class="similarity">78.4% similar</span>
          <span class="name2">"Mohammad Ahmad Hasan"</span>
        </div>
        <div class="pair">
          <span class="name1">"Dr. Ahmed Hassan Omar"</span>
          <span class="similarity">95.2% similar</span>
        </div>
      </div>
    `;
  }, 1000);
}
```

```
        <span class="name2">"Ahmed Hassan Omar"</span>
      </div>
    </div>
  `;
  }, 1000);
}
</script>
```

## Deployment Steps

### 1. Push to GitHub

```
bash

# Add all files
git add .

# Commit changes
git commit -m "Add GitHub Pages setup with documentation and demos"

# Push to main branch
git push origin main
```

### 2. Enable GitHub Pages

1. Go to repository **Settings**
2. Scroll to **Pages** section
3. Select **Source**: Deploy from a branch
4. Choose **Branch**: main
5. Select **Folder**: /docs

6. Click **Save**

### 3. Custom Domain (Optional)

```
bash

# Add custom domain file
echo "blueedge.yourdomain.com" > docs/CNAME
git add docs/CNAME
git commit -m "Add custom domain"
git push origin main
```

### 4. SSL Certificate

GitHub Pages automatically provides SSL certificates for `.github.io` domains and custom domains.

---

## Advanced Customization

### Google Analytics

```
html

<!-- Add to head section -->
<script async src="https://www.googletagmanager.com/gtag/js?id=GA_TRACKING_ID"></script>
<script>
  window.dataLayer = window.dataLayer || [];
  function gtag(){dataLayer.push(arguments);}
  gtag('js', new Date());
  gtag('config', 'GA_TRACKING_ID');
</script>
```

### Search Functionality

javascript

*// Add search with Lunr.js*

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/lunr.js/2.3.9/lunr.min.js"></script>
```

```
<script>
```

*// Initialize search*

```
var idx = lunr(function () {
```

```
  this.field('title')
```

```
  this.field('content')
```

```
  this.ref('id')
```

*// Add documents*

```
this.add({
```

```
  "id": "home",
```

```
  "title": "BlueEdge Mobile Edge Data Cleaning",
```

```
  "content": "Revolutionary framework for real-time data cleaning"
```

```
})
```

```
})
```

```
</script>
```

## Progressive Web App

json

```
// docs/manifest.json
{
  "name": "BlueEdge Documentation",
  "short_name": "BlueEdge Docs",
  "description": "BlueEdge mobile edge data cleaning documentation",
  "start_url": "/",
  "display": "standalone",
  "background_color": "#667eea",
  "theme_color": "#764ba2",
  "icons": [
    {
      "src": "/assets/images/icon-192.png",
      "sizes": "192x192",
      "type": "image/png"
    }
  ]
}
```

---

## Analytics & Monitoring

### GitHub Pages Analytics

html

```
<!-- Add to _includes/analytics.html -->
<script>
// Track page views
gtag('event', 'page_view', {
  'page_title': '{{ page.title }}',
  'page_location': '{{ site.url }}{{ page.url }}'
});

// Track downloads
function trackDownload(filename) {
  gtag('event', 'download', {
    'file_name': filename,
    'link_url': url
  });
}

// Track demo usage
function trackDemo() {
  gtag('event', 'demo_used', {
    'event_category': 'engagement'
  });
}
</script>
```

---





## Your Site is Ready!

Your GitHub Pages site will be available at:







- **GitHub Domain:** `https://yourusername.github.io/BlueEdge`
- **Custom Domain:** `https://your-custom-domain.com` (if configured)

## **Mobile Optimization**


The site is fully responsive and optimized for:

-  Mobile devices (Android/iOS)
-  Tablets
-  Desktop computers
-  Search engines (SEO optimized)

## **Performance Features**

-  Fast loading with optimized assets
-  Progressive enhancement
-  Mobile-first responsive design
-  Modern glassmorphism UI
-  Search functionality
-  Interactive charts and demos

---

 *Your BlueEdge documentation site is now live and ready to showcase your mobile edge data cleaning framework!*