

# QuantumLeap AI Website - Developer Handover Document

---

**Last Updated:** November 9, 2025

**Project:** QuantumLeap AI Corporate Website

**Repository:** <https://github.com/AICyberSecurity911/WBsite.git>

**Live Site:** <https://quantumleapai.abacusai.app>

**Current Branch:** `semi-final` (latest stable backup)

---

## Project Overview

---

1. **Purpose:** Marketing website for QuantumLeap AI, targeting SMBs and Enterprise clients with AI automation, cybersecurity, and business transformation services.
  2. **Tech Stack:** Next.js 14.2.28, React 18.2, TypeScript 5.2.2, Tailwind CSS 3.3.3, Framer Motion 10.18.0, Prisma 6.7.0, PostgreSQL (Supabase).
  3. **Design System:** "Coral Reef" - Dark-mode-first palette with 8 accent colors (coral, cyan, purple, gold, lime, pink, teal, white).
  4. **Package Manager:** **ALWAYS use npm.** Commands: `npm install`, `npm run dev`, `npm run build`.
  5. **Project Structure:** Working directory is `/home/ubuntu/quantumleap_io/nextjs_space/` - all development happens here.
- 

## Design System: Coral Reef Palette

---

1. **Primary Colors:**
  - Primary Background: `#121212` (secondary-bg)
  - Primary Accent: `#FF7F50` (coral)
  - Secondary Accent: `#40E0D0` (cyan/turquoise)
  - Text Primary: White/high contrast
  - Text Secondary: `text-gray-300`
2. **8 Accent Colors** (defined in `globals.css` and `tailwind.config.ts`):
  - Coral: `#FF7F50`
  - Cyan: `#40E0D0`
  - Purple: `#9370DB`
  - Gold: `#FFC107`
  - Lime: `#C6FF00`
  - Pink: `#FF69B4`
  - Teal: `#008080`
  - White: `#FFFFFF`

### 3. Critical Design Rules:

- Light mode backgrounds use #f3f3f3 (grey), never pure white
- Buttons use coral ( #ff5440 ) with gradient effects
- Headings in light mode use teal ( #008080 )
- Body text in light mode uses black ( #111111 )

### 4. Animation Guidelines: All animations use Framer Motion with spring physics (stiffness: 200, damping: 35) for consistency.

## Key Pages & Routes

### 1. Homepage ( /app/page.tsx ):

- Split-screen hero with video transition
- Trust bar with 14+ enterprise logos
- Value proposition (SMB vs Enterprise)
- Testimonials carousel (6-second auto-rotation)
- Links to service pages and SMB landing page

### 2. SMB Landing Page ( /app/smb/page.tsx ):

- High-converting sub-landing for small businesses
- Hero video ( /public/smb-hero-video.mp4 )
- 5 service cards (AI Workforce, Automation, Background Checks, Cyber Intelligence, Business Transformation)
- Single-card testimonials carousel with nav arrows
- “How It Works” 3-step section
- Trust bar with animated logos
- Theme toggle (light/dark mode)

### 3. About Us Page ( /app/about-us/page.tsx ):

- Founder’s vision (Paras Khurana - MIT/Caltech alumni)
- Elite cybersecurity credentials (NASA recognition)
- Strategic Advisory Board carousel (10 members, 2-card increments)
- Auto-rotating every 6 seconds with hover pause

### 4. Service Pages:

- /app/ai-workforce/page.tsx - AI team solutions
- /app/intelligent-automation/page.tsx - Process automation
- /app/background-checks/page.tsx - Beyond Background Checks™
- /app/cyber-intelligence/page.tsx - Threat intelligence
- /app/business-transformation/page.tsx - ROI calculator integration

### 5. Blog System ( /app/blog/[slug]/page.tsx ):

- Dynamic routing for blog posts
- Cybersecurity-themed CTAs
- Story-driven content structure
- SEO-optimized with schema markup

---

## Technical Architecture

---

### 1. **Database:** PostgreSQL via Supabase

- Schema: `/database/schema.sql`
- Prisma ORM: `/prisma/schema.prisma`
- Connection config: `lib/supabase.ts`

### 2. **Authentication:** Admin authentication via JWT

- Implementation: `lib/admin-auth.ts`
- Admin dashboard: `/app/admin/` (protected routes)
- Login page: `/app/admin/login/`

### 3. **Email System:** Hostinger SMTP

- Config: `lib/email.ts` and `lib/email-automation.ts`
- Notification email: From credentials file
- Forms: Contact, consultation, lead magnets

### 4. **Integrations:**

- **TidyCal:** Appointment booking ( `lib/tidycal.ts` )
- **Discord:** Lead notifications ( `lib/discord.ts` , `lib/discord-automation.ts` )
- **Google Calendar:** Event sync ( `lib/google-calendar.ts` )
- **Google Drive:** File storage ( `lib/google-drive.ts` )
- **Firebase:** Admin features ( `lib/firebase-admin.ts` )

### 5. **API Routes** ( `/app/api/` ):

- `/api/breach-check` - Cybersecurity checks
- `/api/calculator` - ROI calculations
- `/api/consultation` - Booking submissions
- `/api/contact-support` - Contact form
- `/api/lead-magnet` - Lead capture
- `/api/automation-lead` - Automation inquiries
- `/api/tidycal-webhook` - TidyCal event sync
- `/api/admin/*` - Admin dashboard APIs

---

## Development Workflow

---

### 1. **Starting Dev Server:**

```
bash
cd /home/ubuntu/quantumleap_io/nextjs_space
npm run dev
```

- Runs on `http://localhost:3000`
- Hot reload enabled

## 2. Building for Production:

```
bash
cd /home/ubuntu/quantumleap_io/nextjs_space
npm run build
npm start
```

3. **Testing:** No automated tests currently. Manual testing via browser.

## 4. Git Branches:

- `master` - Main production branch
- `Final-SMB` - Latest SMB page changes
- `semi-final` - Current stable backup (Nov 9, 2025)
- `SMB` - Previous SMB work

## 5. Deployment:

- **Platform:** Abacus.AI (Vercel-style)
- **Domain:** quantumleapai.abacusai.app
- **Process:** Push to GitHub → auto-deploys from designated branch
- **Build command:** `npm run build`



# Environment Variables & Credentials

## 1. Critical Files (not in Git):

- `/home/ubuntu/quantumleap_credentials.json` - All API keys/passwords
- `/home/ubuntu/quantumleap_io/nextjs_space/.env` - Environment variables
- Structure reference: `/home/ubuntu/.env.example`

## 2. Required Environment Variables:

- `DATABASE_URL` - Supabase PostgreSQL connection
- `SMTP_HOST`, `SMTP_PORT`, `SMTP_USER`, `SMTP_PASSWORD` - Email config
- `NOTIFICATION_EMAIL` - Support email address
- `DISCORD_WEBHOOK_URL` - Lead notifications
- `TIDYCAL_API_KEY` - Appointment booking
- `FIREBASE_*` - Admin authentication
- `GOOGLE_CALENDAR_*`, `GOOGLE_DRIVE_*` - Google integrations

## 3. Accessing Credentials:

```
bash
cat /home/ubuntu/quantumleap_credentials.json
```

- **NEVER commit this file to Git**
- Contains sensitive API keys and passwords

## Key Components & Sections

---

### 1. Hero Sections:

- `components/sections/coral-reef-hero.tsx` - Homepage split-screen hero with video
- `components/smb/hero-section.tsx` - SMB page hero with word-by-word animation
- Both use Framer Motion for scroll-triggered animations

### 2. Carousels:

- `components/sections/home-testimonials-carousel.tsx` - Homepage testimonials (6-second auto-rotation)
- `components/sections/advisory-board-section.tsx` - Advisory board (2-card increments, 6-second rotation)
- SMB testimonials - Built into `/app/smb/page.tsx` (single-card with arrows)

### 3. Calculators ( `components/calculator/` ):

- `ai-team-calculator.tsx` - AI workforce cost calculator
- `automation-calculator.tsx` - ROI for automation
- `hiring-risk-calculator.tsx` - Background check risk assessment
- `profit-potential-calculator.tsx` - Business transformation ROI

### 4. Exit Intent Modals:

- `components/automation-exit-intent.tsx` - Automation page lead magnet
- `components/background-checks-exit-intent.tsx` - Background checks guide
- `components/business-transformation-exit-intent.tsx` - Transformation checklist
- Trigger on mouse leave, scroll, or 30-second idle

### 5. Theme System:

- `components/smb/theme-context.tsx` - Theme provider with localStorage persistence
- `components/smb/theme-toggle.tsx` - Sun/moon switch button
- **Critical Fix:** Always provides context value even during initial mount (prevents hydration errors)

### 6. Layout Components:

- `components/layout/header.tsx` - Sticky nav with dark mode toggle, mobile menu
- `components/layout/footer.tsx` - Dark background (#121212), newsletter form, trust indicators

---

## Common Issues & Fixes

---

### 1. Hydration Errors:

- **Cause:** `useTheme()` called before `ThemeProvider` wraps component
- **Fix:** Split component into two - outer wrapper uses `ThemeProvider`, inner component calls `useTheme`
- **Example:** See `/app/smb/page.tsx` structure (`SMBPageContent` wrapped by `SMBPage`)

## 2. Image Loading Issues:

- Always use Next.js `<Image>` component with `fill` prop inside fixed aspect ratio containers
- Add `relative` class to parent div
- Use meaningful alt text (not "image" or "picture")

## 3. Build Failures:

- Run `npm run build` to check TypeScript errors
- Common issue: Missing dependencies → run `npm install --legacy-peer-deps`
- **Note:** Always use `--legacy-peer-deps` flag with npm install due to peer dependency conflicts
- Check `tsconfig.json` for strict mode issues

## 4. Duplicate Trust Bar Images:

- Intentional for smooth animation effects
- Creates seamless infinite loop in carousel

## 5. TidyCal Integration:

- API key stored in `/home/ubuntu/.config/abacusai_auth_secrets.json`
- Access via: `json_data["tidycal"]["secrets"]["api_key"]["value"]`
- Webhook endpoint: `/api/tidycal-webhook`



# Performance & SEO

## 1. SEO Optimization:

- All pages have metadata files or inline metadata
- Schema markup for FAQs, testimonials, services
- OpenGraph images at 1200x630px
- Canonical URLs set for all pages

## 2. Performance:

- Lazy loading for images with `priority` flag for above-fold content
- Code splitting via dynamic imports
- Framer Motion animations use GPU-accelerated transforms
- Video autoplay with `muted` attribute for mobile compatibility



# Documentation Files

## 1. Key Documentation (in `/home/ubuntu/quantumleap_io/`):

- `CORAL_REEF_DESIGN_SYSTEM.md` - Complete design specs
- `DESIGN_AUDIT_2024.md` - Design decisions and audit results
- `BREACH_CHECK_API_MIGRATION.md` - Cybersecurity API integration
- `AUTOMATION_SETUP_INSTRUCTIONS.md` - Email/Discord automation setup
- `DESIGN_IMPROVEMENTS_IMPLEMENTED.md` - Recent changes log

## 2. Asset References:

- Board member images: `/public/board-members/*.png`
- Company logos: `/public/company-logos/*.png`
- Videos: `/public/hero-video.mp4` , `/public/smb-hero-video.mp4`
- Founder photo: `/public/founder-paras-khurana-new.jpg`

## Next Steps & TODO

### 1. Remaining Tasks:

- Implement blog CMS integration (currently static)
- Add remaining FAQ sections to SMB page
- Complete “Who This Is For” section on SMB page
- Integrate Google Analytics for conversion tracking
- Set up automated email sequences for lead nurturing

### 2. Testing Checklist:

- Test all forms (contact, consultation, lead magnets)
- Verify email delivery for all automations
- Test TidyCal webhook integration
- Check mobile responsiveness on all pages
- Test light/dark mode transitions on SMB page

## Support & Resources

### 1. Repository Structure:

```
/home/ubuntu/quantumleap_io/nextjs_space/
├─ app/                # Next.js 14 app directory
├─ components/         # Reusable React components
├─ lib/                # Utility functions, integrations
├─ public/             # Static assets (images, videos)
├─ prisma/             # Database schema
├─ database/           # SQL files
├─ hooks/              # Custom React hooks
├─ types/              # TypeScript type definitions
└─ styles/             # Global CSS (globals.css)
```

### 2. Quick Commands Reference:

```
```bash
# Install dependencies (always use -legacy-peer-deps flag)
npm install -legacy-peer-deps
```

## Run dev server

---

npm run dev

## Build production

---

npm run build

## Generate Prisma client

---

npm run prisma generate

## Push to GitHub

---

```
git add -A
git commit -m "Your message"
git push origin [branch-name]
```

## Check current branch

---

git branch

## Switch branches

---

```
git checkout [branch-name]
^^
```

---

## Key Contacts & Credentials Location

---

### 1. Credentials Access:

- Primary credentials: `/home/ubuntu/quantumleap_credentials.json`
- OAuth secrets: `/home/ubuntu/.config/abacusai_auth_secrets.json`
- Environment variables: `/home/ubuntu/quantumleap_io/nextjs_space/.env`

### 2. Admin Dashboard Access:

- URL: `https://quantumleapai.abacusai.app/admin/login`
  - Credentials stored in database (check `quantumleap_credentials.json` for initial setup)
-



## Critical Reminders

---

1. **PACKAGE MANAGER:** This project uses npm for all workflows. All dependencies and scripts are configured for npm.
  2. **NEVER COMMIT CREDENTIALS:** Ensure `.gitignore` includes `.env`, `quantum-leap_credentials.json`, and OAuth secrets.
  3. **TEST BEFORE PUSHING:** Run `npm run build` to catch TypeScript errors before pushing to GitHub.
  4. **MAINTAIN CORAL REEF PALETTE:** All new components must use the 8-accent color system defined in `globals.css`.
  5. **HYDRATION AWARENESS:** Always wrap components using `useTheme()` or browser APIs in proper context providers.
  6. **RESPONSIVE FIRST:** Test all changes on mobile, tablet, and desktop breakpoints.
- 

### End of Handover Document

For questions or clarifications, review the documentation files in `/home/ubuntu/quantumleap_io/` or examine recent Git commits on the `semi-final` branch.