

# MICHAEL P. RAGSDALE

**Systems Architect | Full-Stack Developer | Accessibility Specialist** Norfolk, VA (open to relocation within Virginia) | [github.com/raggiesoft](https://github.com/raggiesoft) | [michaelpragsdale.com](https://michaelpragsdale.com)

## Professional Summary

Systems Administrator and Developer with a philosophy of "Empathetic Engineering." Specializing in building resilient, JSON-driven web architectures and automating complex media pipelines. Committed to WCAG 2.1 / Section 508 compliance and creating technology that respects the user's nervous system.

## Technical Arsenal

- **Languages & Scripting:** C#, .net 10, PHP 8+, JavaScript (ES6+), Bash / Shell, HTML5, CSS3 / SCSS, Python
- **Infrastructure & Cloud:** DigitalOcean (Droplets/Spaces), **Nginx (Custom Server Blocks/Rewrites)**, Cloudflare (DNS/SSL), Certbot, Linux (Ubuntu/Debian)
- **Compliance & Tools:** WCAG 2.1 AA, Section 508, Deque axe, ActiveNet CRM, Git, Microsoft 365

## Relevant Technical Experience

### RaggieSoft (Personal Brand & Projects)

Norfolk, VA *Founder & Systems Architect* | Est. 2008 – Present

- **Personified DevOps Ecosystem (Bash/Shell):** Architected "The Family," a decoupled CI/CD pipeline designed for security through isolation on the production server ("Jessica").
  - **"Jenna" (Dev-Side):** A local synchronization agent (jenna-sync.sh) that manages version control and pushes encrypted assets to **DigitalOcean Spaces** via **rsync**.
  - **"Sarah" (Server-Side):** An autonomous deployment guardian (sarah-deploy.sh) that performs hash-based integrity checks against GitHub and executes "sudo-less" atomic updates, strictly enforcing **SetGID** permissions to mitigate privilege escalation.
- **Security & Routing Topology:** Engineered a non-standard web architecture to mitigate automated bot attacks.
  - **"Amanda" (The Fortress):** Configured **Nginx** to serve from an obfuscated directory (/amanda) rather than standard public paths, protecting core assets from scraping.
  - **"Elara" (The Gatekeeper):** Developed a custom **PHP 8** single-entry router (elara.php) that intercepts and sanitizes 100% of incoming traffic before dispatching to view controllers.
- **Systems Engineering:** Engineered **"Silas,"** a proprietary **.NET 10** ecosystem comprising a server-side integrity guardian and a **MAUI** desktop architect, providing a strictly typed GUI for managing complex JSON data shards.
- **Creative Automation (Python/FFmpeg):** Developed specialized processing agents to manage the "Stardust" narrative universe.
  - **"Paige" (Literary Editor):** A **Python** utility (process\_book.py) that ingests raw Docx manuscripts and compiles them into structured JSON for the WCAG-compliant web reader.
  - **"Harper" (Studio Engineer):** A **Bash**-based audio pipeline (transcode-all.sh) that recursively scans master recordings and automates **FFmpeg** transcoding for web-optimized streaming.
- **Empathetic Engineering:** Developed **"Lyra"** (lyra.sh), a "Silent Safety" data sanitization engine that preemptively prunes user-defined trigger terms from imported datasets, ensuring a psychologically safe workflow for neurodivergent users.
- **Full-Stack Development:** Architected "The Stardust Engine," a JSON-driven media platform featuring a **Hotwire Turbo** "No-Build" frontend and a persistent, event-driven audio player.

## Virginia Beach Parks & Recreation

Virginia Beach, VA *Operations Support & Technical Lead* | **May 2023 – Present**

- **Legacy Data Normalization & Compliance:** Developed a manual ETL (Extract-Transform-Load) process to bridge gaps in a legacy municipal reservation system. Converts raw scheduling data into **Section 508 compliant**, accessible operational documents, enriching the output with cross-facility resource availability (e.g., city-wide court schedules) to optimize staff decision-making.
- **Technical Training & Onboarding:** Serves as the primary trainer for the **ActiveNet CRM**, instructing new staff on data integrity protocols, payment processing security, and complex account management to ensure operational consistency.
- **Operational Leadership:** Functions as a rotating Shift Supervisor, overseeing financial reconciliation for high-volume transactions (memberships, private rentals, and POS). Acts as the primary escalation point for resolving complex patron account issues and facility logistical conflicts.

## ODU Online (Old Dominion University)

Norfolk, VA *Section 508 Compliance Specialist* | Nov 2019 – Jul 2022

- **Accessibility Compliance:** Ensured WCAG 2.1 AA & Section 508 compliance for online courses, serving as a critical checkpoint before content publication.
- **Remediation & Testing:** Remediated web pages and documents, verifying student code and utilizing tools like **Deque axe** for detailed reporting.
- **Migration Support:** Provided technical support to instructional designers during a large-scale migration to the Canvas LMS.
- **Standardization:** Designed and developed a universal, accessible template for the University Policies section of the syllabus, streamlining the workflow for faculty.

## Residence Hall Association (ODU)

Norfolk, VA *Director of Administration* | **Sep 2015 – May 2017**

- **Digital Administration:** Administered the organization's **Google Workspace for Education** environment, re-architecting a disorganized legacy file structure into a streamlined hierarchy that optimized workflow for the executive board.
- **Leadership:** Elected by the student body to manage all administrative functions, ensuring the accurate retention of official minutes, legislation, and organizational history.

## Dominion Enterprises

Norfolk, VA *Mobile Applications Developer Intern* | **Sep 2012 – Dec 2012**

- **Mobile Development:** Gained hands-on experience in cross-platform mobile development for Android & iOS using the Titanium SDK.
- **App Creation:** Developed and deployed a "Real Estate Dictionary" mobile application to demonstrate proficiency with the SDK and mobile architecture.

## Education

### Tidewater Community College

Virginia Beach, VA Associate of Science, Information Technology (In Progress, Expected December 2026)

- **Focus:** Software engineering principles, database management, and web application development.

### Old Dominion University

Norfolk, VA Bachelor of Science, Customized Studies in Leadership (In Progress)

- **Focus:** Organizational leadership, project management, and team dynamics.

### Wilson Workforce & Rehabilitation Center

Fishersville, VA *Certificate, Business & Information Technology (2011)*

- **Focus:** Business fundamentals and information technology applications.