

# James Scott McDowell

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Remote Software Developer & Creative Technologist

Open to relocation (lease ends early 2026)

## General Qualifications

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- Grounded, effective listener
- Creative problem solver and lateral thinker
- Hands-on experience creating CSS animations and driving SVG animations with JavaScript
- Comfortable leveraging AI tools as part of the development workflow (AI workflow preferred)

## Technical Skills

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**Creative Web:** Three.js, WebGL, CSS animation, SVG animation, interactive prototyping (digital & physical)

**Client-Side:** JavaScript, HTML5, CSS Grid, Flexbox, jQuery, PrimeFaces

**Server-Side:** Java EE / Jakarta EE, PHP, Python Flask

**DBMS:** Oracle, PostgreSQL, SQLite

**Dev Tools:** Git, GitHub, GitLab, Bitbucket

**Languages:** Java, PHP, C#, Python, JavaScript, SQL, VBScript

**OS:** Linux (Ubuntu) Linode Servers, Windows, macOS

**AI Tools:** ChatGPT LLM, Midjourney, Krea, Meshy.ai

## Work Experience

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**Creative Developer — MegaFuture 232 (Digital Narrative Project) | 2025 – 2026**

Developed **MegaFuture 232**, a WebGL and Three.js-based walking-simulator-style open-world experience.

Showcased the project at Virginia Commonwealth University's annual Game Jam, demonstrating rapid prototyping of reliable, cross-browser 3D experiences using modern generative and creative tooling.

Integrated human-led creative direction alongside AI-assisted workflows, including sound design, original 2D artwork, cutscene composition, and music created in collaboration with sound designer Aaron Smith.

Led technical and aesthetic direction by shaping interaction behavior, pacing, atmosphere, and overall experiential tone.

Live demo: [mcdowellj87.github.io/MegaFuture232](https://mcdowellj87.github.io/MegaFuture232)

Code: [github.com/mcdowellj87/MegaFuture232](https://github.com/mcdowellj87/MegaFuture232)

### **Creative Developer — Drury Village (Three.js Survival Horror Prototype) | 2025**

Developed **Drury Village**, a browser-based survival horror prototype using Three.js, WebGL, and creative AI workflows, guided by my own visual direction and hand-drawn artwork converted into 3D models.

Implemented real-time rendering, AI pathfinding, dynamic terrain, and animated 3D characters within a custom interactive environment.

Designed narrative-driven mechanics centered around psychological horror themes, including addiction personified as an in-world threat that actively hunts and haunts the player.

### **Creative Developer — MyLittleGoblin (Experimental Interactive Game) | 2025**

Developed **MyLittleGoblin**, a browser-based interactive game exploring tone, toxicity, and human-computer interaction through playful provocation.

Hand-illustrated the goblin character and implemented a real-time text input system evaluated via the Google Perspective API to analyze toxicity and sentiment.

Designed reactive character states and visual feedback based on the emotional valence of user input, creating a humorous but reflective feedback loop between player language and system response.

Built rapidly during a game jam environment, emphasizing fast iteration, expressive UX, and experimental integration of third-party APIs.

### **Senior Software Developer — CompQsoft (US Coast Guard Contractor) | 2021 – 2025 (contract ended in August 2025)**

Led post-PHP-upgrade rewrites of the Coast Guard's application for tracking wiring on all USCG aircraft assets.

Secondary developer for assisting with code changes needed for the PHP application that accelerated the paperwork needed for assigning CG personnel with new roles and permissions.

Delivered PrimeFaces/Jakarta EE full-stack replacement of the aging and decommissioned PHP application for submitting engineering service requests.

### **Creative Technologist — Photoss (Distributed Photogrammetry Capture System) | 2022 – 2023**

Designed the initial prototype for an image-capture orchestration system using 50 repurposed Android devices.

Built a Python-based control layer that triggered near-simultaneous image capture across dozens of devices over Wi-Fi, assigning unique filenames and device IDs to support downstream 3D reconstruction.

Deployed lightweight Python Flask servers (“Rezzers”) on each device via Termux (an android bash shell) to expose capture, transfer, and cleanup endpoints.

### **Webmaster II — Eastern Virginia Medical School | 2019 – 2020**

Developed interactive digital magazine features using semantic HTML5, CSS animation, and JavaScript-driven SVG animation.

Collaborated closely with designers and editors to translate print-first layouts into responsive, animated web experiences.

Conducted exhaustive cross-browser and cross-device testing across the full browser stack, including Chrome, Firefox, Safari, and Edge.

Performed validation and performance testing on **real physical hardware** (desktop, laptop, tablet, and mobile devices) rather than emulators to ensure accurate rendering, animation timing, and accessibility under real-world conditions.

Built Python automation scripts to streamline layout generation using CSS Grid, accelerating editorial turnaround.

Projects included award-winning EVMS Magazine (Issues 12-1 & 12-2).

### **Lead Developer & Media Architect — SingularityDating.com | 2019**

Designed and built **SingularityDating.com**, a viral satirical dating platform with a mobile-first user experience and custom interactive UI.

The project received global media attention and was featured on **People.com** following rapid organic growth and public interest.

Initial UX and layout decisions prioritized mobile devices; responsive design practices were later formalized and expanded during subsequent professional work at EVMS.

### **Software Developer — Intergraph / Hexagon PPM | 2018 – 2019**

Contributed to modernization of Smart 3D shipbuilding CAD platform written in object oriented C#.

### **Full-Stack Web Developer — Rose & Womble Realty | 2016 – 2018**

Automated real estate listing updates using PHP Rets, Python scripting & scheduled cron jobs.

Worked with Ubuntu Linode servers to deploy and automate the above PHP real estate collection system.

Created a Python automation script that updated the real estate agent performance leaderboard on a weekly basis.

### **Software Developer — Enterprise Information Services (USCG Contractor) | 2012 – 2015**

Developed C# .NET object oriented barcode tracking system for aircraft logistics, deployed on Intermec handheld scanners.

Maintained and improved mission-critical PHP + Classic ASP applications supporting aviation operations.

### **Full Spectrum Works — Volunteer Developer | 2014**

Built RFID-based access control system using a Raspberry Pi + Python Flask + SQLite for a local makerspace.

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## **Education**

## Certifications & Awards

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Certified Developer — Aviation Logistics Center, USCG (2013)

Award for Excellence for Barcode System Modernization, USCG (2014)

## References

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**Anthony Ruffin** — Packaged App Developer, Accenture

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**Aaron Smith** — Field Service Technician, Novant Medical Group

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**Robert Cooper** — Business Analyst, USCG Base Elizabeth City

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