

James Scott McDowell

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(willing to relocate)

Qualifications

SVG Wizard - can make graphics for any screen size.	Enjoys creating web ads and promotion material.
CSS Ninja - responsive web pages without frameworks.	Careful eye for quality and detail.

Application Software

Design Software - Adobe Photoshop & Illustrator, GIMP, Inkscape
MS Office Suite

Web Technologies

Server-side - PHP, ASP.NET, Python Flask, ASP Classic
Client-side - HTML5, CSS3, CSS Grid Layout, JavaScript/jQuery
Web Browsers - Google Chrome, Mozilla Firefox, Microsoft Edge
Database - PostgreSQL, SQLite

Programming Languages

PHP, C#, Python

Operating Systems

OS X
Windows - 10, 8, 7
Linux - Debian, Ubuntu, Linux Mint

Education

Bachelor of Science in Computer Science from East Carolina University (May 2012)

Work Experience

Software Developer, Intergraph/Hexagon PPM, Hampton V.A. (August 2018 – April 2019)

At Intergraph, I received on-the-job training on UI/UX; I was introduced to the concept of progressive disclosure; worked with flat logos intended for tablets and phones; positioned UI elements like buttons and drop downs in meaningful positions for the user's convenience.

Worked on modernizing the company's flagship product: Smart 3D – a CAD application originally written in Visual Basic and later ported to C#; the application is primarily used in the energy and ship building enterprises.

Wrote software that creates and modifies XML-defined primitive shapes, such as cubes, cylinders, and prisms to be used as “zones” – designated areas placed by the Smart 3D user to indicate areas of significance, such as HAZMAT and other safety concerned areas.

Ascertained how the company's metadata could be shown in the graphical view of S3D. This effort required extensive research, including communication with domestic and international team members; knowledge of XML from my web development career; and trial and error. The fruits of this labor allowed users of S3D to edit dimensions of primitive shapes in real-time.

Web Developer, Rose & Womble Realty, Virginia Beach V.A. (January 2016 – March 2018)

Made edits and bug fixes when needed to legacy .NET web applications.

Implemented a fast PHP-driven back end that pulls data from real estate web services and updates the latest property data for all Rose & Womble properties. The PHP application ran (and continues to run) every 5 minutes, 24 hours a day.

Created responsive property ad web pages with innovative features like 1-touch JavaScript call buttons: buttons with a profile picture of an agent that also doubles as a telephone call button for users on a mobile device. For many of these ads, I utilized Python Imaging Library to parse existing large images into smaller, more web-friendly ads.

Built a Python equivalent of Java's Robot class, with it, I wrote scripts to automate many common office duties like updating the Rose & Womble company sales board.

Software Developer, EIS/VariQ, Elizabeth City N.C. (August 2012 – December 2015)

Responsible for the design, implementation, modernization and maintenance of the U.S. Coast Guard's aircraft parts tracking bar code scanner application. The bar code system is coded as an object-oriented

C# .NET Micro Framework application and it has reliably aided parts movers in the field for over two years. Heavily modified the U.S. Coast Guard's Aircraft Wiring Management web application for the past three years. The application was written in PHP and extensively used advanced JavaScript techniques like AJAX. Notable improvements were made including enhancements to the application's speed; menu improvements to reduce unnecessary clicks; a robust web view; report generating capabilities and features to reduce paper printouts.

Maintained numerous in-house web applications written in PHP and Classic ASP.

Performed administrative duties on the U.S. Coast Guard's SharePoint portal.

Business Solutions Programmer: Wilson Medical Center, Wilson N.C. (May 2011 - January 2012)

Designed a system to store financial records using a combination of web technologies such as: ASP.NET, SQL, HTML, CSS, and JavaScript.

Modified supervisor's web application to audit messages sent through the Corepoint Health interface.

Developed a program to migrate data from a database into another system as a series of PDF files.

Portfolio – <https://www.scottmcdowellpowered.com>

Maker, 757 Makerspace, Norfolk V.A. (January 2016 – present)

Participated in many tech-related talks, such as learning about parametric 3D design, JavaScript robotics (nodebots) and industrial automation. Currently still active in the community, inspiring young makers, helping fellow hobby enthusiasts and encouraging creativity.

Maker, Full Spectrum Works, Elizabeth City/Weeksville N.C. (September 2014 – Present)

Worked with the Elizabeth City community to establish its first Makerspace: a common area for artists, engineers, tinkerers and other creative people to collaborate on projects together in northeast North Carolina.

One of our core rules at Full Spectrum Works is "Document it or it didn't happen."

The following URL catalogs all of our efforts, including the RFID door system I helped develop.

<http://fullspectrumworks.weebly.com/learn-do-share>

Designed the "wave" logo for Full Spectrum Works, it was my first attempt at an SVG graphic using Inkscape.

Hobbyist, Independent, Elizabeth City/Moyock N.C. (September 2013 – March 2015)

Persistently worked on a computer graphics project that can be thought of as a 3D Etch A Sketch.

Feel free to demo it here: https://radmancer.github.io/rad_3d_editor/display.html

Other Experiences

Currently working on a parody dating app that looks and functions very similarly to how Tinder does.

The application is mobile-first, and is meant to be viewed on a phone:

<https://www.singularitydating.com/>

Currently working with an artist to promote his unique lighting sculptures and robotic art installations:

https://radmancer.github.io/team_website/

(this site is a work in progress, there are many exciting details to come!)

In college, I demonstrated my skills as a team leader in developing a physics-based puzzle game. It was my responsibility to identify each team members' talents and delegate tasks that appropriately used each individuals' talents for each corresponding part of the game. One person for code, three, including myself, skinned the 3d models, and 2 others wrote our documentation. It was also my responsibility to ensure team focus and keep the project on time for delivery without accepting too much feature creep. A Unity demo can still be downloaded and played with the following URL:

https://www.dropbox.com/sh/ojap87I1508h95w/AAB_9Al1URY73YObxTzfJolMa?dl=0

Collaborated with a university professor, student programmer, and student supervisor to develop prototype software for a kiosk that collects and manages student athlete weight data. The kiosk software was created for the East Carolina College of Health and Human Performance under the guidance of Dr. Sharon Rogers.

Clubs and Awards

East Carolina University

National Society of Collegiate Scholars

Aviation Logistics Center

Certified Aviation Logistics Center Developer, 2013

Awarded for outstanding diligence in modernizing and supporting ALC's bar code system, 2014

Interests

Visual Art, 3D Modeling, Web Application Development, Internet of Things, Robotics, Computer Graphics.

References

Sarah Price, Former Team Lead, srpcacmkp@gmail.com, 252-340-0618
Fred Fairchild, Vice President of Enterprise Information Services, ffairchild@goeis.com, 252-338-9846
Torrence Perry, Systems Engineer II (Linux Sys Admin, Oracle Fusion Middleware Admin),
US Coast Guard Base Elizabeth City, nenimi0719@gmail.com, 252-333-6304
Alex Rook, President of Full Spectrum Works, alex.rook@gmail.com, 919-610-1254
Dr. Sharon Rogers, Assistant Professor, rogerssh@ecu.edu, 252-737-2982
Brian Dietrick, IS Director at Wilson Medical Center, Brian.Dietrick@wilmed.org, 252-399-8709