

Davis Ford

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Booz Allen Hamilton, Inc. – *Management Consulting Firm, Washington, DC*
Lead Engineer – Associate [2016-2018]

At Booz Allen Hamilton, I have been primarily involved in the delivery of our TCPI Project. TCPI will transform patient care for over 140,000 clinicians across the nation, and is projected to save the federal government \$1-4 billion over the course of its lifespan.

The TCPI Project has delivered numerous software products to our clients so far. I have been heavily involved in the creation and maintenance of each product.

I wrote the front-end of the project (OPAT) in ES2016 JavaScript using React and Electron, and successfully deployed numerous updates to stakeholders and users based on extensive feedback. I currently support this project by iteratively improving the application through frequent discussions with project stakeholders.

I wrote the back-end of the project (data-ingest) in Javascript using Node.js. While writing the data-ingest project, I learned an enormous amount about performance in Node.js (and its limitations). This tool is used to ingest complex data from clinicians across the country.

The data-analytics portion of the project is written using Python, Postgres, Pandas, and other data science tools. The project helps generate reports, visualizations, and actionable data for our clients. We are experimenting with methods to display our results, but the end result is our clients easily parsing large amounts of data for health care providers across the country.

I wrote our data-intake API using Python, Django, and Postgres. This API enabled technically savvy clients to submit vast amounts of data seamlessly, without using cumbersome manual uploads. Instead, the data is deposited right into our databases for further analysis.

The TCPI Project has garnered praise from CMS and all of our affiliated clients - going into our second option year, we were able to increase our annual funding by \$3.2M, bringing our budget to \$5.85M. In our first option year, we were granted a \$1.89M bonus for our delivery of multiple high quality products. I was honored with Booz Allen's "Collective Ingenuity" award after a particularly momentous effort at the start of option year 2.

William J. McCarthy & Associates – *Digital Marketing Firm, Alexandria, VA*
System Administrator & Technical Solutions Director [2014-2016]

Developed an in-house email template generation and mass email scheduling web application (RealSimpleEmail.com) using Javascript, jQuery, PHP, and MySQL

- o Since going live, it has saved thousands of hours of work in a firm with 15 employees
- o Made responsive, RSS-integrated email with utm tracking made easy enough for an intern to handle
- o Integrated with third party ESP (Email Service Provider) API for one-click uploading
- o Just watch the demo! It's a great little tool. We've pushed millions of emails through my system, and it's incredibly easy to use.
- o We sold this platform to the Tea Party, pre-Trump election, for their presidential campaign emails. I'm not saying my tool is responsible, but... you do the math.

Maintained 17 websites with traffic of 350,000/month, resulting in a traffic increase of over 60% since joining the company.

Introduced company wide A/B testing to measure digital campaign success rates.

Oversaw technical aspects of a merger in which the company acquired an additional 800,000 email subscribers.

Independent Software Development

Freelancer [2012-Present]

My website usually has the most up to date version of my projects, which you can find here: <http://davisford.com/blog/pages/projects.html>

My latest project is the creation of a cryptocurrency arbitrage trading bot. You can find a public, free demo of the trade-finding logic here: <http://davisford.com/bitcoin-arbitrage/>. My private codebase executes trades on Bittrex and Cryptopia, and is profitable in stable market conditions. This project makes heavy use of Node, TypeScript, Big.js (math library), and a lot of API's.

Bored? Play http://davisford.com/consultant_simulator/ - a simulation of far too many meetings at Booz Allen :)

[Here's an article I wrote](#) about getting 100/100 Google PageSpeed score.

I retain the dubious honor of having dozens of articles written about my Trash Talk Generator: most notably Kotaku's "Player Creates Crowd-Sourced Trash Talk Generator For Steam Games." I'm very proud of this project for the hilarity aspect.

I was contracted by Cellcion, LLC (cellcion.com/) in 2016 to improve the front-end of their automated flow cytometry bioinformatics software. I worked with the R language and Shiny to finish this project.

Since leaving WJMA, I have been retained as a consultant for all of their programming needs. I frequently update the software I created for them and fix their servers. They still use RealSimpleEmail.com to manage their emails. Over 3 billion emails sent so far.

I have developed custom software for Bonsai Electronics (<http://360bonsai.com/>). It's an Electron/React/Node-powered file sorter that helps videographers and editors easily manage the vast volumes of data that result from a day of shooting with up to 12 cameras per shot. This software has been used by National Geographic, Sony, and the Blue Man Group.

Education:

ECPI College of Technology, Manassas, VA

Bachelor's Degree, I.T. Management [2013]

Bridgewater College, Bridgewater, VA

Political Science [2007]

Additional Personal Development & Training:

Pursued self-interest in application development for Arduino microcontroller
Successfully engineered and programmed working LED hula hoop in C++
Developed and built an "[Infinity Table](#)" using Arduino and addressable LED's.
Wrote a cryptocurrency arbitrage trading bot using Node - fully automated, supports multiple exchanges, and remains in use to this day.

Languages/Technologies

Bash, CMD, C++, Java
Javascript, jQuery, React, Redux, ES2015/2016,
Node.js, Mocha/Jasmine/Jest
Electron, WebPack, Babel, NPM
HTML, CSS, SCSS, Bootstrap
Drupal, Wordpress, LAMP Stack
Python, Pandas, NumPy, Django
Postgres and MySQL
PHP, R and Shiny
serverless-framework

Other Skills/Qualifications

Personal Website - daviseford.com/
GitHub - github.com/daviseford

Most of my work for Booz Allen is in private repos – I can show you samples of code in person.

Pursuing Solidity development via Udemy courses. Have already deployed smart contracts to test networks and minted my own cryptocurrency.

Certifications:

AWS Certified Solutions Architect (2017)
CSA Certified Scrum Master (2017)
CompTIA A+, Network+, Security+ (2014)