

# Michael Copeland, CSM

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## PROFILE

With my extensive background in software development, spanning the last 21 years, I have developed applications, full-stack, using languages from C# to Java and JavaScript (Node.JS). I bring an eagerness to learn new technologies and to apply new patterns to solve problems, always striving to stay atop the trends of the ever-changing world of software development. I am seeking a position in software development with the opportunity to continue my passions in learning new technology stacks.

## EXPERIENCE

**Software Development Advisor, GDIT Inc., Chantilly, VA — 2003-Present**

### Refugee Arrivals Data System

Currently developer across multiple Spring MVC Applications. Responsible for migration of URM, a data system for tracking unaccompanied minors' access to refugee benefits, to a separate Spring MVC application. Modernized UI across screens to speed page load and standardize look and feel. Encapsulated common design elements into a standalone Spring application to both serve as a style guide as well as a library of components and services to be used across applications. Developing a service locator mobile application using Flutter, to allow location of refugee services via devices using iOS and Android. Built a survey system for communication with refugees to gauge their success in locating services upon entry to the US. Developed front end application using Webpack and NodeJS to provide a fast-loading mobile responsive site for use on phones. Configurations created to deploy application via S3 or self-contained NodeJS server via AWS EC2 instances. Application interfaces with Spring Boot API to serve user-customizable survey questions, storing data for future reporting. Implementing notifications using Amazon Pinpoint to provide survey notifications to users via email, SMS and WhatsApp.

Implemented JIRA workflows for development and communications teams. Implemented scrum practices for a small development team which grew as the contract progressed. Implemented daily standups. Conducted sprint planings with development teams. Introduced estimation and release planning concepts to project management team and development team to ensure delivery of tasks on time. Introduced concept of velocity to team to aid in planning of work. Managed releases through automated tasks in JIRA as well as generation of release notes. Generated daily status reports using Automated rules. Assisted development

team in creation of dashboards to facilitate best practices for development team. Migrated existing hosted instance of JIRA to Atlassian along with Zephyr plugin information.

#### VA File Conversion Services

Developed multiple Grails and AWS applications. Responsible for maintaining modular system in charge of maintaining shipping logistics and file scanning for the Department of Veteran Affairs. Developed rich UIs using jQuery and CSS. Provided real-time reporting using dashboards accessing AWS Lambda functions reporting data from Dynamo DB and SQL Server. Developed API using Lambda functions to record data from partners providing scanning data for Veteran claims. Ensured UI maintains standards for accessibility and 508 using Deque Axe.

#### Mailbox Zero

Developed automated processing routines using UI Path for a project to process PDFs from email inboxes. Utilized Tesseract OCR engine to read data within a reliable accuracy to aid in processing of Veteran records. Developed multiple robot processes to read different Veteran claim forms and versions for processing. Worked to train algorithms in built in Tesseract engine to recognize both system font and handwriting, within a reasonable degree of accuracy. Developed Python scripts to create JSON from data read via OCR from PDF forms for storage in DynamoDB calling APIs created in AWS Lambda functions. Aided in orchestration process for multiple bot processes reading from AWS SNS queues to kickoff PDF OCR scanning processes.

#### Vets.gov API

Served as Scrum Master across two Agile development teams. Performed sprint ceremonies across two-week sprints for development and DevOps teams. Calculated team capacity and managed tasking, ensuring deliverables were completed as promised within sprint constraints. Oversaw migration of Sprint applications to Spring Boot based microservices in an AWS hosted architecture, utilizing Docker containers along with AWS provided services. Performed additional development tasks as needed providing software architecture input. Created POCs leveraging Lambda based applications, creating APIs using Lambda, API Gateway and DynamoDB. Created scriptable APIs using AWS CloudFormation templates to allow for local development as well as source deployable APIs.

#### EVSS

Served as an application developer and technical lead across multiple projects, from inception to maintenance. Currently serving as a Lead Front-End Developer and System Architect for the EVSS project, [eBenefits.va.gov](https://eBenefits.va.gov). Responsible for oversight and implementation of a site redesign, incorporating responsive design using the Skeleton CSS framework and creation of a library of custom UI

components for use across multiple codebases comprising the eBenefits application. Facilitates development across the front-end and back-end teams, assisting in migration of the legacy application into an API backend with MVC front end. Implemented a build system for a team of front-end developers using Grunt, to provide Sass/Compass compilation, JavaScript minification and concatenation, code listing using ESLint, and a front-end test suite for each component using QUnit to eliminate regression bugs in the CI process. Provides peer review for members of application development team as well as oversees front end development across application teams. Responsible for 508 testing and remediation using FireEyes and JAWS. Serves as System Architect on the project Architecture Review Board. Responsible for researching and recommending technologies to be implemented across the application. Developed a user notification system to send push notifications to users in real time of system queued events using Node.JS, Faye (pub/sub) and Angular.

#### Grants.gov

Previously developed grants.gov, a Grails application to support grants management across multiple clients. Developed business workflow system (BPM) for defining activities and events across the grants management lifecycle. Used XML to define customizable workflows. Developed application to process medical research grant applications via web-based UI. Provided PDF export capability using Apache POI and iText libraries. Troubleshot issues with Tomcat servers using JMeter to simulate application load and provide benchmarks for response times. Used JVM debugging tools to analyze and troubleshoot application slow response times. Created SQL Server reports to provide analytics to business. Utilized stored procedures and views to provide customizable reports engine. Developed customizable reporting UI front end using JQuery.

#### EPA/National Response Team

Rearchitected a web-based application to migrate existing Lotus Notes based application. Created and maintained customizable online catalog using a Flex based application. Assisted in migration of application into a LAMP based AWS hosted stack. Created deployable EC2 images on AWS to facilitate migration and failover.

#### **ANECDOTAL FREELANCE EXPERIENCE**

Developed bot process, using UIVision RPA to create an automated process to login to a tee time registration application at a local golf course. Allowed for quick customization on the fly to change intended month day and time range to look for available tee times for varying sizes of playing groups at various time ranges.

Successfully ran processes, scheduling times, including processing payment via credit card to reserve tee times over the summer of 2020.

## **CERTIFICATIONS**

Certified Scrum Master (CSM) – Scrum Alliance March 2017

## **EDUCATION**

B.S. (Computer Science), University of Maryland, College Park, 2003

## **SKILLS**

Programming Languages: Groovy, C#.net, C++, Java, Python, Web Services (REST/SOAP), XML, XSLT, JavaScript, ActionScript/Flash/Flex, HTML, CSS, PHP, T-SQL, PL/SQL, MySQL

Frameworks and Libraries: Grails, Spring MVC, Spring Boot/jHipster, Fusebox, jQuery, jQueryUI, YUI, Bootstrap, Skeleton, Node.JS/Express, Faye (pub/sub), Firebase, Meteor

Automation/RPA Tools: UI Path, UIVision RPA

CI: Jenkins/Hudson, Grunt, NPM, ESLint/JSLint, SassLint, QUnit

Search Appliances: Verity K2, Google Search Appliance, Solr

Application Servers: Apache HTTP Server, IIS, Tomcat, Oracle Weblogic

Applications/IDEs: IntelliJ Eclipse, Vim, Adobe Creative Suite, GIMP, Microsoft SQL Server 2008/T-SQL, MySQL, Oracle 11g, PL/SQL Developer, Ant, Maven, Git, SVN

Screen Readers: JAWS, IBM Home Page Reader, Deque Axe