**Gregory Carl White**

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 **928-713-3400**

**Summary of Work Experience:**

 **I am committed to being an immediate problem solver and team player that will leverage my skills to provide you with value from the first day I come onboard.**

 **Full-Stack Web Developer experienced in the design and development of responsive web applications. Experienced Java 8 developer with recent experience using Spring Boot, Maven and Eclipse frameworks. Very experienced in micro-services design and implementation. I also have 3 years of solid, recent experience in the design and implementation of REST based API's using Spring Data REST, Swagger, Amazon API Gateway and Amazon Query API.**

**Very experienced in Microsoft .NET, C#, ASP.Net and as a Microsoft SQL server platform developer. Very well versed in many MVC frameworks and implementations including ASP.NET MVC and ASP.NET Core,**

 **Data scientist experienced in the use of advanced R and Python programming, as well as the Hadoop platform. AI, Deep learning model development using Pytorch and Tensor flow. Recent experience working with the GPT-3 LLM. Expert in the use of scripting and scripting tools including: bash, Perl and Python.**

 **Well versed in Cyber Security. Extensive recent experience using data Tokenization and Encryption(length preserving, AMEX, AMLT) as well as Crytographic algorithm design, development and testing.**

**Very experienced JavaScript and Typescript programmer. Comfortable in the use of: Single-Page web application design, Server Side Rendering, NextJS, Closures, Clustering, State and Property management, Bindings and Sockets programming to the Node Single Thread Event Loop.**

 **Expert in Node JS with a deep understanding of the V8 engine, libuv, The Event Loop, NodeJS API, NodeJS Bindings, Thread Pool usage and Callback Queues.**

  **Very experienced in the use of Amazon Web Services and porting application to AWS. Experienced in using: EC2, S3, Amazon API Gateway, Cloud Watch, Lambda, Kenesis and Dynamo DB. Very experienced in the use of** **Test driven and Behavior Driven Development. Extensive use of: Mocha, Jasmine and Karma and Chai coupled with Node, Phantom and Selenium.**

**Education:**

**Bachelor of Applied Science, Software Engineering, Florida Atlantic University, Boca Raton, Florida - 1978**

**University of California, Berkeley, California - Professionals Extension Program - Computer Science - 2010**

**Master’s Degree, Theology, Gateway International Bible Institute, Phoenix Arizona - 2018**

**LFCE(Linux Foundation Certified Engineer) – 2020**

**IBM Certified Data Scientist - 2021**

**Employment History:**

**Under contract to: Optumserve Federal Health Services**

**November 2021 – February 2024**

 **Full Stack web Developer – Full stack web developer and data scientist specializing in real time data modeling. Extensive recent experience creating R-Based models for clinical trial data from biotechnology testing. Extensive use of AWS Data Lake as a source for Deep Learning and Model Deployment using R and Python. Extensive use of Tensor Flow and Pytorch to design, develop and test event based algorithms working with Open AI.**

 **Extensive recent experience developing and writing complex Lambda based expressions.**

 **Extensive recent experience with Hadoop, HDFS and designing and constructing HQL queries using Big Data models. Extensive use of Name and Data Nodes as well as the Resource Manager and Node Manager.**

 **Additional expertise in the design and implementation of Infrastructure As A Service(IAAS), Platform As A Service(PAAS) and Software As A Service(SAAS) using RedHat OpenShift, Heroku Connect, Salesforce and Oracle Cloud.**

 **Data base architect and team lead role for the migration of all SQL based databases to SQLServer 2019 Enterprise. Extensive use of: Data Migration Assistant(DMA) as well as SQL Server Migration Assistant(SSMA), SQL Server, Visual Studio, C# and Entity Framework 6.**

 **Extensive use of bash and Perl scripting, creating data migration and complex SQL queries in order to facilitate customer defined ad-hoc data modeling.**

 **Expert in Node JS with a deep understanding of the V8 engine, libuv, The Event Loop, NodeJS API, NodeJS Bindings, Thread Pool usage and Callback Queues. Excellent understanding of Asynchronous Programming and their workarounds. Deep knowledge of async / await and how to solve problems dealing with promise arrays.**

 **AWS Services engineer skilled in the use of: Cloud Front, CloudWatch, Route 53, Boto 3, Lambda, Kinesis, Cognito, EC2, S2, S3 and Dynamo DB.**

 **Very experienced JavaScript programmer. Well versed in using Angular 14.**

**Comfortable in the use of: Server Side Rendering, NextJS, Closures, Clustering, State and Property, Bindings and Sockets and programming to the Node Single Thread Event Loop.**

 **Accomplished and skilled database programmer, especially in the use of SQL(Query, Join, Import and Export) as well as database and table design using the principles of data normalization. Extensive experience working with Postgres, SQL Server, MySQL and SQLite as well as NO-SQL databases such a MongoDB and Dynamo DB.**

**Under contract to: Humana**

**June 2019 – November 2021**

**Full Stack Web Developer - Cyber security analyst and developer. Lead discovery architect responsible for the design and development of data security and protection endpoints, critical for the security for all customer and HIPPAA related data. Extensive use of the Protegrity Data Protector and Data Management platforms. Extensive use of data Tokenization and Encryption(length preserving, AMEX, AMLT) and Crytographic algorithm design, development and testing.**

 **z/OS development using COBOL, TSO/ISPF, CICS Transaction Gateway, COBOL II, MVS/JCL, VSAM, DB2, EASYTRIEVE and IMS/DB.**

**Under contract to: Local Motors, Tempe, Arizona**

**April 2018 – June 2019**

***Full Stack Web Developer*. Python development for an on-board, real time vehicle control and display module. Extensive use of the CAN Bus protocol API. Extensive machine learning development centered around the design, development and deployment of real time events that fed Tensor Flow models to initiate command and control for an autonomous vehicle.**

 **REST API design for a Flask based TCP packet capture and filter middleware layer. Heavy use of functional programming using Python 3, Flask and SQLALchemy.**

**Angular 14 Dashboard and UI development with an emphasis on reusable, function based components. Extensive use of Angular Universal for server side rendering(SSR). Extensive use of Angular Lifecycle Hooks, Angular Material, Router, Angular Forms, Templates, state management using NgRx. HTML, CSS, Typescript 4.7, ES6 and Node JS.**

 **AWS Python programming using MQTT, Boto3, IoT, Lambda, Kinesis and Dynamo DB to create and deploy a real-time data pipe between the vehicle and the cloud to record and secure event driven steering and motor analysis data. Terraform infrastructure design deployment and configuration for all of the AWS Cloud based infrastructure and services needed to implement.**

**Under contract to: Oracle Corporation**

**January 2017 – April 2018**

***Full Stack Web Developer and Oracle Cloud Migration Specialist.*** **Single Page Application(SPA)web design, development and deployment for a web migration and orchestration tool. REST API design using Swagger. Extensive Node JS server based Javascript design, development and deployment. Extensive UI design using the FLUX methodology coupled with the MEVN stack(Mongo Express Vue and Node). Heavy Typescript, Coffee-script and Javascript programming using ES6 and ES2015. Store management, Reducer and Action design, web form design, Component, Filter, Selector, Service, Directives, Providers and Template design. UI Containers, Dynamic binding, dependency injection, one-way data binding, properties management and host elements. Closure, Webpack and Gulp package management.Extensive use of Terraform as the implementation model for IAS(Integration as a Service).**

**Extensive use of the Hadoop Platform for the creation and implementation of a suite of Map Reduce data flows to consolidate and reduce data set duplication. Extensive use of pig scripts and hive queries, as well as job scheduling through Oozie.**

 **As an Oracle Cloud database migration specialist, my duties included extensive use of database analysis and migration strategies. OPC (Oracle Public Cloud, Iaas and Paas) for Compute, Storage and Java as a Service. Data Pump, on-premise and RMAN. Back end application data storage and synchronization using Scala. Session management using yar. Test driven development using Jasmine and Karma. Real time data pipeline planning and development using Kafka. Data base programming using Cassandra and the Cassandra query language. Website end-to-end testing using BrowserStack and Protractor. Application configuration and deployment using Linux containers(LXC) along with Docker.**

**Under contract to: Cisco, San Jose, California**

**March 2015 – January 2017**

***Full Stack Web Developer***- **Team lead for the design, development and implementation of a suite of Micro-services based network-centric device health checking services based off of the Software Defined Network(SDN) architecture. REST API and micro services development using Spring Boot, Spring Data JPA, Spring Data REST and Spring MVC Web Rest Controllers. Front-end and back-end design and programming using Java 8 in a Spring ,Maven(m2Eclipse) environment. Extensive use of Micro-services design patterns including: Repository, Controller, Aggregator, Container, Branch and SAAS. Heavy Javascript component design using the Model-View-Controller pattern in conjunction with Angular 4. Extensive use of the MEAN stack. Component and template design using both TymeLeaf and Angular 4. Additional experience using AMD (Require JS).** **Extensive use of Cisco’s Application Policy Infrastructure Controller Enterprise Module(APIC-EM).**

**Extensive use of the Grapevine Elastic Services Platform as a container orchestrator as well as Kubernetes. Extensive use of: Closures, Asynchronous programming including Waterfall and Parallel, Clustering, Bindings and Socket programming to the Node Single Thread Event Loop. Continuous integration using Jenkins.**

**Extensive use of SQL in designing and execution very complex SQL queries including joins using Postgres and SQL Server.**

**Under contract to: Cigna Mobile Pharmacy, Waterside Crossing, Connecticut**
**January 2013 – March 2015**

 ***Full-stack Web Developer.* Enterprise Java 8 application development the Spring Framework in order to create, design and implement a suite of Mobile Home Pharmacy Applications. An integral part of this effort was the development of new HATEOS HIPAA compliant REST endpoints using Spring Boot along with the Amazon API Gateway and Query API.**

 **UI Development using Angular JS. Extensive use of the Model-View controller and Repository patterns. Javascript programming that made extensive use of two-way data binding, $scope as well as directive, template and service design.**

 **Extensive use of Amazon AWS including: EC2, Cloudfront, Lambda, Kenesis, Dynamo DB, API Gateway, IAM and AWS Single Sign on. This contract also made use of the Amazon Mechanical Turk Developer Sandboxes.**

 **Test-Driven UI development(TDD) with the focus tools being Jasmine using ES6, Selenium, and Phantom.js.**

 **Oracle DB SQL programming and configuration. as well a designing and programming migrations. Screen mockup and wireframe design using Balsamiq. JSON data serialization. SSO(Single sign-on) API design.Very experienced with Agile and SCRUM development methodologies using VersionOne including: Story board design, work flow management, burn-down charts and waterfall. Agile development using Version One. Source code management using GitHub and Giflow with Jenkins as the continuous integration tool.**

**Under contract to: PayPal, Scottsdale, Arizona**

**January 2012 – December 2012**

 ***Full Stack Web Developer -* Site design, development and deployment for a distributed Risk Management and Evaluation system. Extensive PHP application development using Zend Studio 10. SQL Server integration. TSQL programming. HTML5, CSS3 and PHP programming. Extensive use off the D3.js library for real-time chart mapping and display. Linux script boot and environment configuration using bash. Virtualization and provisioning expert for Docker, Chef and Jenkins CI. Expert experience in creating testing and deploying Chef based recipes. Heavy Ruby 2.0 programming. Experienced in working in a team deployment environment using Continuous Integration via Jenkins. Very experienced at AWS in deploying, managing, and operating scalable, highly available, and fault tolerant systems on AWS • Migrating existing Cigna applications to AWS • Implementing and controlling the flow of data to and from AWS • Selecting the appropriate AWS service based on compute, data, or security requirements • Identifying appropriate use of AWS operational best practices • Estimating AWS usage costs and identifying operational cost control mechanisms.**

**Under contract to: SalesForce.com, St Louis, MO**

**January 2011 – December 2012**

***Full Stack Web Developer and AWS Cloud Migration specialist. -*  Wed application developer for a suite of sales data collection modules in order to streamline and consolidate multiple web portal feeds. Extensive use of AWS Lambda and Node.js including the use of CallBacks, Event Emitters, Promises, Google Protocol Buffers, Protocol.js, Web Sockets and the extended use of UI front development using Angular JS 2.x. Very experienced in the use of: Microsoft Typescript programming, Bootstrapping, Reflection, UI Component design, component reuse, Webpack, Closures, Clustering, Bindings,Web Sockets and programming to the Node Single Thread Event Loop. Uni-directional data flow, FLUX principle programming(Action, Dispatcher, Store and View), property versus state, routing, template and partial design. *Cryptography, SSH, SSL, encryption and encode/decode using the AWS Key Management Service.* Message processing using RabbitMQ. Asynchronous function programming using async(waterfall, parallel). NoSql programming using DynamoDB. Heavy Javascript design and development using Objects, Prototype, Scope, “this”, Apply, Call and Byte Arrays. Server side scripting using Node.js and socket.io This project made extensive use of Test Driven Development using Mocha, with case driven tests that emphasized the use of Spies(Sinon), Rewire(User data injection), Istanbul(code coverage), Supertest(HTTP endpoint mocking) and Cheerio(HTML response). Additional heavy tasking to cloud deployment using AWS Lambda, Kenesis, S3, S2, SNS and Vault as well as interfacing to Heroku Connect. Postgres TSQL programming. Extensive use of AWS API Gateway, Docker, Chef, Cloud Formation and VPC set up. Agile development using Rally. Git source code management and continuous integration using Jenkins. Extensive use of :feature branch and remote branch setup, merging and rebasing.**

**Under contract to: OnStream Media, Colorado**

**January 2010 – December 2010**

***Full Stack Web Developer.* Single Page Application(SPA)web site design, development and deployment for a suite of Cloud based streaming conference room and media presentation products. *Test driven development using Node.js, RSpec and Cucumber.* Front-end web design using Twitter Bootstrap and Angular JS coupled with HTML 5 (Canvas) and streaming media extensions. Heavy use of Dependency Injection($scope), DOM manipulation, Directive, Promise, Service and Module design. Wireframe design using Axure. RESTFUL based web service design. Back-end database design and maintenance using SQLServer. JSON data serialization. Amazon Web** **Services (AWS) deployment using AMI(Amazon Machine Images). The creation and deployment of EC2 instances. The management of EC2 volumes including RAID. Extensive use of Chef provisioning in conjunction with Amazon Cloud Formation templates using knife-c2. Deployment of new server configurations(active and passive);EBS RAID volume maintenance;Cookbooks that use LWRP; Run lists;Containers and Data Bags.**

**Under contract to: IBM Security Services, Boulder, Colorado**

**June 2009 – September 2009**

 ***Full Stack Web Developer* – Single Page Application(SPA) web site design, development and deployment for an Enterprise security and compliance data warehousing application. MVC design and development using Ruby on Rails 4.x. DB2-2 SQL programming. Rails Asset Pipeline programming. Behavior driven development using Rspec. Angular JS front end UI template design. Model-View-Controller design using Ruby on Rails. Agile Development using JIRA, Confluence and Story Board design. Site mapping and wireframe design using JetStrap.** **Web form and template design using Angular JS. Very experienced with analyzing and re-engineering SPA’s(single-page applications) using MVC. Wireframe design using Balsamiq. WebStorm development and debugging. JSON data serialization*.* Test driven development from User Stories using Node.js, Jasmine, Capybara and Selenium.** **Ruby on Rails Layout and Template design using CSS(Sass and LESS). Ruby Gem web services integration using Devise, Sprockets, Cucumber, Sass, HAML, RSpec and Rake. Additional project work using Python ETL programming for concentric data modeling. Red Hat Linux 6, Fedora Core 13 and Ubuntu 12.04 LTS. Linux kernel configuration and script programming using bash, perl and python. Linux application and GUI programming using Tcl/Tk. Linux programming using GNU tools(GCC,make).**

**Under contract to: Boeing Defense Systems, Huntington Beach, California**

**January 2009 – June 2009**

**Linux Device Driver Engineer** VxWorks Embedded Linux systems engineer responsible for the design and implementation of a Reliable Unicast Transport stack (Layer 3) that anchor and support command level battlefield network communications in a Mobile Ad Hoc Network (MANET) environment associated with FCS project. Linux network kernel programming to stabilize and sustain Voice over IP traffic flows that meet or exceed government standards for situation awareness. Software Defined Radio (SDR). JTRS WIN-T and GMR radio waveform integration. HAIPE (IPSEC). Routing protocol design and implementation. Linux kernel debugging and testing. C and C++ programming. Linux based scripting using Python and bash. Extensive JavaScript and Node JS single-event loop programming for a customized event notification interface. GNU Tools (MAKE). Linux network kernel configuration and debugging using layer 4-protocol interfacing. ARM, XSCALE and Freestone microprocessor implementations. Virtual devices. TUN/TAP and network stack interfacing (frame reception, net device, and soft net data). GNU Toolchain (gcc, gdb, binutils, uClibc, BusyBox). Boot loader(U-Boot) programming using the Eclipse IDE. Linux kernel debugging using GDB, OOPS, Ksymoops, YAMD, Memwatch and Electric Fence. Linux embedded Kernel development using JTAG and USB based kernel development tools such as Abatron and Lauterbach.

**Under contract to: Boeing Integrated Defense Systems, Anaheim, California**
**January 2007 – December 2007**

**Linux Device Driver Engineer** VxWorks embedded Linux systems engineer responsible for Linux kernel tuning and testing in order to stabilize and sustain Voice over IP traffic flows that meet or exceed government standards for an SDR (software defined radio) associated with JTRS project. Extensive use of Green Hills INTEGRITY 4.1.8, MULTI 4.2.3 and rtserv. User Mode Linux(UML). HAIPE protocol driver design and maintenance. Linux kernel debugging . C and C++ programming using CORBA and ACE pattern design. Linux network kernel configuration and debugging using layer 4 protocol interfacing. Virtual devices, TUN/TAP, network stack interfacing(frame reception, net\_device and softnet\_data structures, the netif\_xx call interface, softirq’s and polling), NAPI, traffic control and rate limiting. Linux kernel 2.4 and 2.6 enhancements. Linux GNU, Make, ssh and telenet.