

Brian Crouch, Software Engineer

Knoxville, 37920, TN, 9313087987, brian.l.crouch@gmail.com, <https://www.linkedin.com/in/brianlcrouch/>

SUMMARY

Dynamic Staff Software Engineer with over 15 years of experience in software development and project leadership. Proficient in transforming Web applications using AngularJS, Bootstrap, and RESTful APIs, leading to enhanced reporting capabilities. Successfully executed projects that improved efficiency and reduced operational costs. Expertise in Agile methodologies and object-oriented design allows for the delivery of high-quality, maintainable software. Ready to leverage skills and experience to drive innovation and success in software engineering projects.

WORK EXPERIENCE

| | | |
|-------------------|--|-------------|
| 07/2024 – 01/2025 | Owner, CFO, CTO, LevelUp BDE, LLC | Atlanta, GA |
| | <ul style="list-style-type: none">• Oversaw multiple projects from inception to completion, managing all phases of construction.• Managed the company's financial operations, ensuring fiscal responsibility and transparency in all financial dealings. | |
| 01/2021 – 08/2023 | Principal Web Software Developer, Peraton Inc. | Atlanta, GA |
| | <ul style="list-style-type: none">• Served as the CDC Contractor for NCHHSTP from April 2018 to August 2023.• Transformed the National Tuberculosis Surveillance System (NTSS) reporting framework from a purely web-based application to Power BI.• Developed web pages utilizing AngularJS, JSP, JSTL, Bootstrap, jQuery, JavaScript, HTML5, SOAP/REST, and associated technologies.• Leveraged AJAX principles with open-source JavaScript libraries and JSON.• Collaborated within a Git/Bitbucket source code repository, maintained deployment plans in Atlassian Bamboo, and facilitated knowledge sharing through Atlassian Confluence.• Executed object-oriented design and development while adhering to established design patterns.• Demonstrated proficiency in source control and continuous integration environments. | |

| | | | |
|-------------------|---|-------------------|---|
| 04/2018 – 01/2021 | Principal Web Software Developer, Northrop Grumman | Atlanta, GA | <ul style="list-style-type: none"> • Acted as the principal web developer, architecting and implementing a new responsive UI design using Bootstrap 4 for the next generation of the National Tuberculosis (TB) Surveillance System Case Reporting (NTSSCR), the National Tuberculosis Surveillance System (NTSS), National Tuberculosis Indicators Project (NTIP), and TB Genotyping Information Management System (TB GIMS) data entry and reporting systems. • Collaborated as part of a five-member development team to conceive, design, and implement extensive new functionalities and enhancements to NTSSCR, NTSS, NTIP, and TB GIMS. • Applied object-oriented design principles to construct effective and maintainable software using proper design patterns. • Created application web pages employing AngularJS, JSP, JSTL, Bootstrap, jQuery, JavaScript, HTML5, SOAP/REST, and other relevant technologies. |
| 07/2017 – 12/2017 | Team Lead – UI Architect, CITC Systems | Alpharetta, GA | <ul style="list-style-type: none"> • Directed the future design and development of an integrated collections and recovery platform as a Software as a Service (SaaS) utilizing AngularJS, Bootstrap, HTML5, jQuery, and WebSockets on the front-end alongside RESTful APIs served by Java/Spring, MariaDB, Apache, and Linux hosted on Amazon Web Services. • Engineered a self-service consumer portal inclusive of a payment wallet and payment/promise capabilities, as well as two-way SMS and email channels to reduce call center costs, enhance collection rates, and mitigate compliance risks in processes. • Sustained a production-quality build and unit-test automation system using Grunt, Karma, and Jasmine alongside implementing a GIT branching strategy for a streamlined multi-developer environment, coupled with deployments managed through a Maven proxy repository with Artifactory and Bamboo. • Mentored junior UI developers in AngularJS and build/deployment tools. |
| 09/2016 – 12/2017 | Full Stack UI Developer, CITC Systems | Alpharetta, GA | <ul style="list-style-type: none"> • Facilitated front-end implementation, architectural refactoring, and performance optimization within an Agile/Scrum development environment as part of a four-member UI team. • Extended the REST data provider service using Java 8 atop Spring 4 while developing associated stored procedures in MariaDB. |
| 12/2015 – 07/2016 | 3M – Web Developer - Consultant, Solution Design Group | Golden Valley, MN | <ul style="list-style-type: none"> • Contributed as a web developer on a team of over twenty-five members for the Active Safety project, which incorporates RFID tags and cloud-based software for Environmental Health & Safety professionals managing their personal protective equipment program. • Designed the next generation of a custom single-page responsive web application to supplant the legacy line-of-business web application. • Migrated client implementation to a custom Single Page Application (SPA) framework utilizing ASP.Net MVC, AngularJS, and Entity Framework, with all routing, data access, caching executed via custom JavaScript code. • Provided application support for multiple languages and time zones through tailored localization implementation and utilized moment.js for date management. • Engineered a web application that operates seamlessly across modern desktop browsers and mobile devices, implementing aggressive HTTP response caching to ensure offline access to prior responses. |

08/2015 – 12/2015

**HealthPartners – Software Developer - Consultant,
Solution Design Group**

Golden Valley, MN

- Collaborated in a five-person consulting team in an agile setting to develop and implement .NET applications and web services, leveraging Oracle databases and Java applets to support the Healthy Pregnancy Project at HealthPartners.
- Utilized two-week sprints for agile development execution.
- Refactored legacy source code to enhance efficiency in existing manual business processes, successfully streamlining retrieval of client coverage, eligibility status, and availability.
- Optimization initiatives reduced turnaround time for client updates.
- Delivered a web service to all development teams, enabling future integration into their applications and services.
- Assisted in the design and development of automated email delivery systems for client and patient newsletters, as well as corporate reports.

07/2014 – 05/2015

**Software Engineer – Research & Development, Aerosim
Technologies Inc.**

Burnsville, MN

- As a key member of a two-person development team, designed and developed e-Learning training solutions for the company's advanced pilot training web-based Learning Content Management System (LCMS).
- The LCMS provided clients with self-paced instruction, demonstrations, self-assessments, practice scenarios, remediation, testing, and progress tracking functionalities.
- Provided administrative support to manage and monitor course content, exam creation, and user accounts along with course progression.
- Established UI standards, wireframes, and prototypes for front-end templates and fully functional screen designs.
- Engaged in requirements gathering and screen design work with clients and the graphics team for ongoing and future development projects.
- Utilized Microsoft Visio and Adobe Illustrator for wireframes and templates; implemented accessibility-compliant designs using HTML5, CSS, and jQuery.
- Led the development of question bank and examination modules for the LCMS using front-end code, Razor syntax, jQuery, Knockout.js, and AJAX, ensuring a responsive design compatible with various mobile devices.
- Architected database layers and implemented stored procedures using Entity Framework Code-First and RESTful API Controllers for handling HTTP requests.

03/2013 – 05/2014

**Principal Software / Database Developer, SatCom
Marketing, LLC**

Brooklyn Park, MN

- Catalyzed strategic business solutions through the design and execution of a dynamic multi-platform application suite featuring an enhanced user interface tailored to support, maintain, and transition from outdated call center systems.
 - Created, designed, and preserved a comprehensive company-wide data-driven XLA encompassing core tools utilized by all departments along with generic ad-hoc Excel tools and automated reports for clients, implementing advanced formulas, user-defined functions, and database tools across Excel, Outlook, Access, VBA, and SQL Server.
 - Engineered and deployed production applications to facilitate database operations, incorporating SQL Server 2008/2005, featuring a backup device copier, viewer, creator, and robust validation for business logic, alongside tailored auditing processes and interfaces to remediate flawed data in the data warehouse, significantly minimizing data asset damage and reducing business disruptions and revenue losses.
 - Dramatically improved organizational efficiency through the development and implementation of production applications that replaced outdated proprietary software written in Delphi, alongside automation processes for the extraction, transformation, and loading (ETL) of data into the enterprise data warehouse sourced from various inputs, including partner flat files, a multi-channel communication call center system (ODBC), and MySQL databases.
-

EDUCATION

2008 – 2013

**Austin Peay State University
Bachelor of Science, Computer Science**

Clarksville, TN

- Minor: Mathematics

SKILLS**JAVA**

.Net

CSS

JavaScript

SQL

Azure

ASP.Net MVC

Power BI

Kanban

GIT

TFS

REST

MySQL

LDAP

VBA

UML

WPF

Bootstrap

Kendo

Grunt

NPM

VS

Tomcat

Moment.js

Knockout

Data Structures

Early Stage Startup Experience

Building

Documentation

Reliability

GitHub

Attention to Detail

Collaboration

Self-Motivation

C#

HTML

LESS

TypeScript

AWS

MariaDB

Spring MVC

Agile

Scrum

Docker

JSON

SOAP

ADO.NET

VB

XML

WCF

AngularJS

jQuery

Webpack

Gulp

TeamCity

Apache

AJAX

LINQ

Frontend Development

Software Design

Engineering Design and Analysis

Maintenance

Performance

Security

Experience

Cleanliness

Teamwork