Joshua Rufer

Self-educated Software Engineer

Experience

September 2018 – Present
SAIC contract to Army Game Studio, **Principal Game Dev Engineer**
After being offered a position with the contract prime, I continued support of the GoArmy Edge Suit of training applications.

2013 – September 2018
CSRA contract to Army Game Studio, **Principal Game Dev Engineer**
Worked with a team to design and develop AGS's first Unity 3D based, cross-platform, mobile-focused, sports simulation and training application: GoArmy Edge Football.

- Focused on implementing complex user interfaces. Developing new solutions to ensure consistent and intuitive user interactions across touch screen mobile phones and tablets, as well as multi-screen desktop use.
- Developed custom iOS plugins to allow Unity to access to native iOS functionality. This included saving in-game videos direct to the iOS Camera Roll, handling device permissions settings, detecting "notched" devices and adjusting UI to stay unobstructed.
- Solo designed and maintained a Jenkins based, multi-node "Build server." This system monitored our Perforce version control system for developer commits and automatically built our application for each target platform. A Mac server generated, configured and compiled the XCode project before deploying iOS builds to our test devices via Apple Test Flight. PC servers would build Android studio projects into .apk files which are automatically uploaded to a Jira page, along with Windows and Web GL deployable.
- After GoArmy Edge Football was released, I worked with the rest of the team to extract main application, non-sport specific code into a "Core" library. This major refactor allowed the team to spin off into smaller groups and simultaneously develop Go Army Edge Soccer and other GoArmy Edge applications, all sharing a standard framework for common systems, features and user interface consistency.

2011 – 2013
CSC contract to Army Game Studio, **Mobile Software Engineer**
Fully developed native iOS, Unity 3D and React Native applications for simulation, training, education, augmented reality and entertainment.

- In a team of only two iOS and two Android developers, we were each responsible for the full life cycle of our applications. From requirements gathering, prototyping, design, development, custom graphic work, simulator, and on-device testing, bug reporting and final deployment to the App Store.
- At the start of each cross-platform project, the team would decide if native user interfaces were required or if a unique custom interface would be used. If the interface was custom, Android and iOS developers worked together to ensure that every screen or user interaction looked and felt exactly the same on both platforms.
- Though several of our apps were developed for non-public release, U.S. Army Career Navigator and America's Army Comics can each be found on iOS and Android App Stores.

2009 – 2011

CSC, **Full Stack Software Engineer**

As a lead developer for a Corp of Engineers contract, I was responsible for the selection and integration of tools and technologies used to replace a Cobalt-based reporting application with a modern web-based application.

- This data-driven web application leveraged the Spring enterprise frameworks to allow scaling and portability.
- To ensure data integrity with an existing database system, we developed a custom ORM capable of integrating legacy data structures into a modern environment.
- I was personally responsible for the design of the application's new user interface. Utilizing modern web technologies, including HTML 5, CSS 3 and dynamic client-side content composition; I was able to drastically improve the user experience.

2002 – 2009

COTS, **Software Engineer**

As part of Logistics Support Activity (LOGSA) "Enterprise Team," I was responsible for the full life-cycle design of a custom Spring based development stack, designed to allow small teams to rapidly develop new web applications.

- Part of this effort involved creating a unified authentication and authorization framework, allowing all of these applications to adhered to common security and DB access policies.
- The custom framework was also responsible for the consistent implementation of analytics tools which provided comparable application metrics and assisted in automated load balancing across all of these new applications.
- As the enterprise team's lead UX designer, I was personally responsible for the creation and documentation of LOGSA's User Interface guidelines and standards. This insured that our applications were visually consistent and maintained Section 508 compliance for the visually disabled.
- Once this framework was complete, each enterprise team member was responsible for the training and oversight of multiple small development teams, each working in this new framework.

2001 – 2002

CST, **Computer Programmer**

At CST I worked as part of an XP team, in support of LOGSA. As a member of this team, I was responsible for the design and development of a large-scale Java-based reporting framework called LIDB.

- The application was used to deliver over 700 different reports, from a multi-terabyte database to thousands of concurrent users.
- My duties included optimizing database queries, developing a data cache to improve performance on frequently run reports, scheduling of long-running jobs including user notification upon completion.
- My most rewarding accomplishment at this time was the research and implementation of the then-experimental XMLHttpRequest. This allowed our application to load only the changed portions of a web page. By decreasing the amount of data transfer needed to navigate the application; drastically improving performance on high latency networks. Once standardized across browsers, this technique would later be called Ajax content delivery.
  At this time, IE 5 was the only browser supporting this technique, so the LIDB implementation was designed to safely fall back to full page delivery on all unsupported browsers.

1999 – 2001
FPMI Communications Inc., **Graphic Designer / Web Designer**
As resident artist, I designed book covers, flyers and promotional material in Adobe Photoshop, Illustrator and Page Maker.

- Without enough work to stay busy, I learned HTML and redesigned the entire company webpage so it looked like a business and not a GeoCities account.
- After reading about PHP I updated the site to include a very basic inventory management system to replace the manually updated Spreadsheet previously used.
- Eventually, I created a simple web store that listed all of the company's books and products by category and hid titles that were out of stock. Customers could fill out a form and select the products and quantities they wished to purchase and provide a contact number for our sales team to reach them to confirm and process the order over the phone.

Education

1997 – 1999
The University of Alabama in Huntsville, **Fine Arts Major**

1994 – Present
Real world, **Self-Educated**

Languages and formats, I have used (in no particular order)

Java, JSP, C#, C, Obj-C, Swift, Java-Script, ECMAScript, JSON, HTML, CSS, XML, XSLT, SQL, UNIX Shell, Python, Ruby, PHP, Action Script, Bash, Lua, BASIC, Perl, Pascal, POV-Ray, Power-Builder, Markdown, SVG, ColdFusion, Fortran