

Summary

- Recent university graduate with diverse experience, including research experience. Strong foundation in both CS fundamentals and common technologies.
- Specific interests in algorithm and data structure optimization.
- Consistently able to rapidly develop proficiency in new languages & technologies.
- Experience working in Agile & iterative methodologies, using both rapid & long development cycles.
- History of success in both team-based and independent management styles, including both local and virtual work environments.

Education & Awards

- NCSU c/o 2015 – Raleigh, NC
- Computer Science (*minor Russian Studies*)
- 3.53 GPA (3.84 Major GPA)
- Dean's List 2011-14
- Julia P. Skinner Scholarship Award for Academic Excellence, 2013
- North Carolina School of Science & Mathematics Tuition Grant

Relevant Experience

Boeing	IT Intern, Programmer/Analyst	2014
Art4Aid.org	Board Member/Technical Director	2011 to 2013
ApexSQL	Analyst/Technical Lead	2009 to 2012
Third Place	Associate Manager	2008, 2012
Misc. Contract Work	Sole Proprietor	2006 to present

Projects

ApexSQL Edit – SQL IDE Editing Features (*ApexSQL*) Project Manager

- Major overhaul of flagship IDE's editor, focused on bringing code completion and code beautification features up to and beyond market parity. New design & features led to significant increase in sales of the tool.
- Geographically disperse agile based team – Poland, Serbia, USA, Russia. Entirely virtual collaboration.
- Major Technologies: **C#**, **MS SQL Server**, **.NET**, Agile Methodology

Fujitsu GlobalSTORE & MarketPLACE POS API (*Fujitsu/NCSU – Capstone Project*) Team Lead/Architect

- Developed **REST** API to allow 3rd party developers transparent access to Fujitsu's POS systems, abstracting away the transition between the old and new systems. Optimized for environments with network limitations.
- Major Technologies: **C#**, **REST**, **WCF**, **.NET**, **JSON**, **TCP/IP**, **SOAP**, **Git**, **nUnit**

Artist eCommerce & Profile System (*Art4Aid*) Architect/Developer

- Developed small eCommerce website as sole technical developer. Allowed for artists to create profiles, display their work, and sell via PayPal. Connected with Facebook and Twitter for social media integration.
- Major Technologies: **PHP**, **MySQL**, **jQuery**, **JavaScript**, **PayPal API**, **Facebook API**, **Twitter API**

Speech Driven Android App (*NCSU – Spoken Dialogue Systems*) Team Lead/Architect

- Created Android app that gave interview tips using an exclusively speech based interface.
- Major Technologies: **Java**, **Android**, **Android Speech API**, **Multithreading**

iTrust – HIPAA Compliant Medical Records (*NCSU – Software Engineering*) Team Lead

- Developed secure CRUD functionality for patient records in existing open source web application, including complete GUI for both healthcare providers and patients.
- Re-architected entire project for scalability, modularity, and platform independence. 10+ years of feature growth by undergraduate CS students made the original project wish it was spaghetti.
- Major Technologies: Hibernate, MySQL, JSP, Java, HTML, CSS, JavaScript, jQuery, Apache Tomcat, junit, httpUnit

Jeopardy! Web Scraper & Data Analysis

(NCSU – Data Sciences)

Sole Developer

- Worked with statistics undergraduates to analyze Jeopardy games for “winning” strategies. Created program from scratch which scraped data from the web, structured the data, and did randomness testing.
- Found significant predictability in locations of Daily Doubles and seat position of the winner.
- Major Technologies: Java, SAS Enterprise Miner

Strategic Roadmap Visualization Tool

(Boeing)

Team Lead

- Developed a tool to fulfill Boeing CAS team’s need to visualize and plan for consolidating 300+ applications across 15+ sites and hundreds of teams.
- Major Technologies: Excel, PowerView, Sharepoint, SQL, JavaScript

Database Change Email Notifications

(Boeing)

Sole Developer

- Expanded existing automated supplier email notification system to handle both text & html recipients
- Major Technologies: Oracle, PL/SQL, UTL_SMTP, MIME

Level Function Trees

(Personal Research)

- Unpublished continuing research on hyper-optimized data retrieval and ordering data structure and associated algorithms. Planned publication in Spring, 2015
- Better complexity than any existing (best & average case). Comparable worst case. $O(\frac{\log(n)}{\log\log(n)})$

Source Control Data Mining for AAIT Analysis (NCSU – Independent Research)

- Developed tool to mine source control repositories for static analysis alerts and associated alert characteristics with the goal of improving static analysis alert prioritization techniques.
- Code alerts generated by static analysis were automatically associated across project revisions, and connected with file and project structure changes (along with many other characteristics).
- Major Technologies: Java, Findbugs, PMD, SVNKit, jGit, Hibernate, MySQL, Perst ODB, Sparksee Graph DB, Subversion, Git

Plugin Distribution Service for vBulletin

(Contract)

Architect/Sole Developer

- Helped small startup create a complete vBulletin plugin distribution system and management platform
- Major Technologies: PHP, JavaScript, jQuery, vBulletin

Custom Adobe InDesign Scripts

(Contract)

- Created series of custom Adobe InDesign extensions for local publishing company, working iteratively with the editing staff to develop requirements and perform acceptance testing.
- Major Technologies: JavaScript, Adobe InDesign SDK