



Todd Duncan *Software Engineer*

About Me

I am a well rounded “jack of all trades” developer with over 20 years of professional experience. From front end UX development to pyrotechnics to highly efficient multi-threaded synchronized server code I do it all. I excel in writing elegant, efficient code and optimizing existing systems; productivity is key. I thrive in collaborative supportive Agile teams. I have expertise in leadership, team building, and other facilitation techniques. Most importantly I care about my work and strive to improve our quality of life through it. I bring balance to my work as a father, acrobat, yogi, athlete, outdoors man, and handyman.

Education

1997 – 1999
Master of Computer Science
Georgia Institute of Technology
Atlanta, Georgia

1992 – 1997
Bachelor of Computer Engineering
Auburn University
Auburn, Alabama

Contact

31 62 06 69

tdelaune@gmail.com

Copenhagen, Denmark

linkedin.com/in/todd-delaune-duncan

yogatodd.com

Expertise

Languages



Hard Skills



Soft Skills



Professional Experience Summary

Senior Software Engineer

Exerp 2021 – 2022

Architected new electronic signature system. Using Java, Wildfly & Postgres made EJB server enhancements and Eclipse SWT UI client improvements. Coded complex new business logic stories into over 5 million lines of code. Worked in Agile environment (daily stand ups, story point estimation refinements, reviews, etc.).

Senior Software Engineer

JT IoT 2019 – 2021

Led the research, design, implementation, and testing of major new Java REST integration with Verizon. Instrumented code base with AspectJ to analyze and improve overall system performance. Discovered and fixed numerous production bugs while browsing code in my downtime. Headed user experience team, designed and made numerous improvements to existing UI. Initiated company wide code quality standards and improvements. Worked in Agile environment.

Independent Contractor

2007 – 2019

Created Spring Boot web apps, smart phone apps, and stand alone programs. Android apps written using CodenameOne include PDK Watch and ClientTracker. Desktop programs written using JavaFX and Swing include pyrotechnic and special effects control systems, noise monitoring, music visualization, and fitness studio management software.

Senior Software Engineer

SecureWorks 2005 – 2007

Redesigned security event handler to more efficiently process events in real time. Optimized existing software deployment system yielding about a 10x performance gain (run time reduced from 1½ hours to 10 minutes).

Software Engineer

Z-Tel (Trinsic) Communications 1999 – 2005

Primarily a middleware developer, wrote internal APIs connecting telephony switches to databases and web pages. Major optimization of existing phone call handling quadrupling existing call load capacity saving the company millions in server costs. Wrote a CLI Java scripting language that became a company standard for integration and testing.

Software Engineer

Third Millenium Communications 1997 – 1999

Contracted out to The Bankers’ Bank to rewrite their existing COBOL WYSE terminal system into a new Java Swing application.

Hobbies & Interests

Acrobatics, Yoga, Hiking, Cycling, Piano, Guitar, Gaming

Detailed Work History

Senior Software Developer

2019 – 2021 Exerp, Copenhagen, Denmark

- Led investigation and design of new system for electronically signing and sealing legal documents.
- Worked on stories introducing new features to backend EJBs and frontend SWT based client.
- Technologies: Java, EJB, REST, SOAP, Postgres, Hibernate, SWT, Jenkins, Graylog, Elasticsearch, Jira, Confluence, bash, git

Senior Software Developer

2019 – 2021 JT IoT, Copenhagen, Denmark

- Full stack development, wrote 60+ scripts to optimize workflows (more than doubling performance), integrated with multiple Telco's (REST & SOAP), designed new Real Time Rating system, improved design and consistency of UX, found and fixed numerous undiscovered bugs, instructed employees, organized new team building social events.
- Technologies: Java, REST, SOAP, Oracle, UNIX, GWT, Docker, Kubernetes, Jenkins, bash, perl, git

Independent Contractor

2007 – 2019 Atlanta, Georgia

Itemized contracts & projects during this time period are listed here:

2019 Noise Monitor

- Wrote a program with Java and JavaFX to monitor and report on noise levels. Ideal for teachers and parents this software uses a simple stoplight metaphor to notify when it gets too loud.

2018 TestMaker

- Used Java, Spring Boot, Hibernate, MySQL, and Vaadin to develop web app allowing professors to create tests with variable question & answer equations generating randomizable tests to minimize cheating.

2017 MKP USA

- Used Java, Spring Boot, Hibernate, Postgres, Quartz, and Vaadin to develop web app to orchestrate and schedule events. Configurable automated emails are delivered to collaboratively schedule and confirm meetings and attendance.

2016 ClientTracker App

- Developed Android app to track time and/or money spent with clients (and associated financial accounting) in Java using Apache Derby and CodenameOne. App is designed for broader use cases; it tracks credits and debts, loans, it can be used as an itemized todo list, and more.

2015 PDK Watch App

- Created Android and iOS app (PDK Noise Report) to support neighboring communities communications with the airport. Written in Java and PHP using CodenameOne this app allows people to file noise complaints quickly and easily. As a result the airport gathered 10 times more data than before and saw improved communication with the community.
- Integrated an SPL (sound pressure level meter) using Python to track high noise events of low flying aircraft. Integrated a RealTek SDR (software defined radio) tuned to listen to ADS-B data from local aircraft in Java to gather relevant aircraft positioning data, stored in MySQL. Wrote UNIX scripts to coordinate, parse, and graph this real-time data for greater airport transparency in its noise reporting with the community.

2013 – 2014 PrIDI

- Authored music visualization software for Autistic children. Using MIDI inputs the software maps notes to shapes of varying color, location, and size using JavaFX and Swing. Since sound alone did not fully engage them the visual stimulation helped increase interest in music while also calming the children. (Other music visualization software was found to be too overstimulating.) PrIDI provided additional benefits to musicians; they can better see note and chord patterns and progressions.

2008 – 2013 BurnTec

- Developed iOS and Android app to interface with and control a car's dashboard. Replaced air and radio controls, added LED lighting controls, added navigational mapping, etc. using Java.
- Developed a visual effects interface for persistence of vision displays (POV) in Java using Swing. Developed numerous graphics effect patterns for the display. The POV displays were comprised of a long (4') vertical strip of RGB LEDs spinning around the perimeter of a cylinder at high enough rate of speed (600 rpm) to create a holographic cylindrical display "screen." (Like a straw circling around a tall glass.) Challenges included physical data throughput through high speed revolving contacts, display synchronization, and data compression / UDP issues in congested WiFi networks.
- Developed pyrotechnic control software and real-time audio processing algorithms for beat detection to drive flame effects from music in Java / Swing. Imagine a graphic equalizer where the bars are flames. A major hurdle was the physical delay in releasing and igniting propane quickly enough. The software had to predict likely beats on multiple frequencies about ~100ms *before* they happened to synchronize sound with fire effects.

2006 – 2008 Yoga Studio Management Software

- Authored and maintained a feature rich application for managing a yoga studio. With over 100,000 lines of custom code this 100% Java software integrates with an embedded Apache Derby database and has fully transparent configurable Swing components. It tracks students, their histories, teachers, classes, scheduling, and financial accounting data. It includes a suite of printable reports and graphs. Challenges included creating a transparent, automatic, on and offline database backup system with version control; acting as both project manager, sales manager, and developer; bridging the language gap between yoga teacher and software engineer. Satisfied customer needs without overburdening them with technical jargon.

Senior Software Engineer

2005 – 2007 SecureWorks, Atlanta, Georgia

- Created a company wide re-architecture to better handle security events in a streamlined, scalable pipe.
- Developed a security event pattern detector/filter and interface in Java to efficiently and in real-time modify and process rules based detection.
- Optimized existing software deployment systems; the 1.5+ hour long security rule set deployment now runs in 10 minutes saving the company both time and money.
- Technologies: Java, PHP, subversion

Software Engineer

1999 – 2005 Z-Tel (Trinsic) Communications, Atlanta, Georgia

- Developed and maintained software at all enterprise levels from the backend databases, through the middleware, into the telephony controls, and lastly to the user on the phone. Technologies: Java, Oracle, Novell, VXML, JSP, RMI, JNI, LDAP, Dialogic API, XSLT, Weblogic J2EE, Apache, ClearCase, bash/perl scripting and Excel switches.
- Major performance enhancing redesign / rewrite of existing Java/C++ telephony code. Interfaced with Dialogic DLL's using JNI and created a highly multithreaded resource sharing mechanism quadrupling existing performance and call load capacity saving the company millions of dollars in server costs.
- Developed multiple full stack special purpose Java programs for system monitoring, call tracing, and maintenance.
- Wrote a real-time, no compile Java command line interpreter scripting language. Effectively a simplified version of Java 9's jshell 15 years before it existed. This tool became a standard for the company for testing middleware and other methods.
- Maintained and configured development, QA, and production environments.
- Developed and maintained several UNIX scripts (statistical gathering, database/file system comparison/sync, etc.) becoming standard company tools using bash, perl, awk, sed, etc.
- Responsible for 24x7 on-call duties