Tyler Tuschhoff

Columbia • Missouri • 573-275-2610 • ttuschhoff11@gmail.com

https://github.com/t2techno • www.linkedin.com/in/tytu16 • https://t2tech.info

Professional Summary

I am a lead full-stack developer working on both browser and mobile applications. My core responsibilities currently center around maintaining www.shelterinsurance.com and all of its services and apis. My team also manages several internal company sites and numerous micro-services that run batch jobs, send push notifications and emails, connect to databases, and manage queues talking to other internal Shelter services. I am also the team's lead for CI/CD in Jenkins, as well as maintaining and releasing our mobile hybrid apps. My core languages are Java Spring for backend development and the legacy browser's front-end, NextJS for the new browser front-end, and Angular for the mobile apps.

My most recent accomplishment is leading a rewrite of shelterinsurance.com in NextJs. It was architected so that we could release the new site feature-by-feature, providing the user a single, unified experience while behind the scenes they are changing servers between old and new pages. This allowed us to begin releasing years ahead of schedule without losing functionality. Previously I had re-written the separate android and ios mobile apps as a single, hybrid angular app. I have personally helped reshape every digital experience a Shelter customer has within our ecosystem.

Personal Summary

I am an avid learner who is constantly looking for ways to combine my interest in music and audio with programming. I used C++ and JUCE to create a plug-in, Faug, which is a Minimoog Model D emulation. The DSP is written in Faust, a functional language for the purpose of audio code generation. This program serves as a convenient experiment for me as I learn and test new analogue emulation techniques. I am also interested in the design aspects of the process, having created all image assets in Inkscape, as well as a python script that allows me to export my asset locations and directly import them in my C++ code. Because Faust DSP code can easily be exported to multiple targets, I am creating a web version of Faug in NextJS using web assembly.

Technical Skills

Languages: Java, SQL, Typescript/Javascript, HTML, CSS, C++, C, Python, Go, Faust

Frameworks/Libraries: Java Spring, JUnit, NextJS, React, Angular, Node, Ionic, Gradle, DB2, TensorFlow, Git, JUCE

Website/Vendors: Jenkins, Pivotal Cloud Foundry, Graylog, AWS, RabbitMQ, Bitbucket, Github, Jira, ServiceNow, Microsoft Teams, Confluence, T4, Wordpress

Environments/IDEs: Intelli-J, Xcode, Visual Studio Code, Android Studio, Visual Studio, Jupyter Notebooks, Windows, macOS, Linux

Experience

Shelter Insurance   – Columbia, Missouri

Application Engineer **–** June 2024 — Present

1. Lead mobile developer for all of Shelter Insurance, Ionic Angular
2. Lead developer architecting and rewriting www.shelterinsurance.com, NextJS
- On-call rotation for production issues with customer facing website
- Represent team as tech lead with internal and external business partners
- Collaborate with leadership to create timelines and architect solutions to company objectives
- Collaborate with other developers on API design and company objectives
- Work with PO to break features into stories that can be worked by other devs
- Train and support junior and senior employees to progress team growth
- Release Android and iOS apps when new features and bug fixes are ready
- Gather weekly metrics on mobile app usage.
- Develop, maintain, and test new and expanding features

Shelter Insurance   – Columbia, Missouri
Senior Software Engineer **–** December 2021 — June 2024

1. Created 5 year roadmap for rewriting Shelter's customer website, www.shelterinsurance.com
2. Lead mobile developer for all of Shelter Insurance, Ionic Angular
3. Lead developer architecting and rewriting www.shelterinsurance.com, NextJS
- On-call rotation for production issues with customer facing website
- Represent team as tech lead with internal and external business partners
- Work with leadership to create timelines and architect solutions to company objectives
- Train and mentor junior employees to ensure smooth onboarding and team growth
- Collaborate with entire company, horizontally and vertically, technical and not
- Release Android and iOS apps when new features and bug fixes are ready
- Gather weekly metrics on mobile app usage
- Develop, maintain, and test new and expanding features

Shelter Insurance   – Columbia, Missouri
Software Developer III **–** January 2021 — December 2021

1. Rewrote Shelter's separate Android and iOS apps as a single Hybrid app in Ionic Angular
2. Rewrote Java Spring APIs to serve the new app
3. Lead mobile developer maintaining and releasing Android and iOS apps
- Work as part of a full-time remote agile team
- On-call rotation for production issues with customer facing website
- Gather weekly metrics on mobile app usage
- Create and maintain unit tests for new and changing features
- Improve and add to existing websites and apps based on company objective

Shelter Insurance   **– Columbia, Missouri**
Software Developer II **–** March 2018   — January 2021

1. Integrate new Document hosting service
2. Integrate with Docusign for eSignatures
3. Integrate with new Claims submission service

- Advise VP on choosing company for company event white-label app
- On-call rotation for production issues with customer facing website
- Release Android and iOS apps when new features and bug fixes are ready
- Gather weekly metrics on mobile app usage
- Create and maintain unit tests for new and changing features
- Improve and add to existing websites and apps based on company objectives

Shelter Insurance   **– Columbia, Missouri**
Contract Software Developer **–** November 2017   — March 2018

1. Integrate new internal Claims API
2. Replace username/password with Access/Refresh token setup
3. Add background-sync for automatic id card updates in apps

- Release Android and iOS apps when new features and bug fixes are ready
- Create and maintain unit tests for new and changing features
- Improve and add to existing websites and apps based on company objectives

Best Buy – Cape Girardeau; Brentwood, Missouri July 2012 - June 2016;   November 2016 -April 2018
Geek Squad Consultation Agent

- Keep inventory of client computers in store, ship and receive product
- Work as part of a distributed team, communicating effectively through notes
- Educate clients on basic computing tasks, such as using a printer, MS office, copy/paste
- Diagnose computer issues, fixing if possible, or determine requirements of fix within 20 minutes

Education

College - Southeast Missouri State University - December 2015
     Pure Mathematics, B.S. — Music Composition, B.M. — Computer Science, minor

Amazon - Cloud Architecting:
      Architecting on Aws - Summer 2022
      Serverless Immersion - Summer 2022

General Programming:
    Josh Comeau - Front-End Development
      CSS for JS Developer - Spring 2024
      Joy of React   - Spring 2024
    Kadenze - Audio Development
      Real-Time Audio Signal Processing in Faust - Summer 2022
      Intro to Audio Plugin Development   - Summer 2022
    Udemy - Backend Golang
      Mastering Multithreading Programming with Go - Spring 2022
      gRPC [Golang] Master Class   - Summer 2022
    Udacity - Artificial Intelligence
      Foundations of Deep Learning Nanodegree - Spring 2017

Projects

Professional

shelterinsurance.com rewrite — https://www.shelterinsurance.com/CAFE/

- Lead Architect
- Lead Full-Stack developer
- Written in NextJS
- Works seamlessly with legacy site, releasing feature-by-feature
  - Began releasing ~3 years ahead of estimate

Shelter Insurance Android/iOS app — Android and iOS

- Lead Full-Stack developer
- Ionic-Angular front-end, Java-Spring backend
- Graphic Design Award
- ~100% increase in mobile users year-over-year
- ~50% increase in mobile payments year-over-year
- ~99% reduction in mobile crash rates year-over-year
- Two star increase in ratings on Play Store and App Store

Personal

Local Business Website — https://togetherwithtess.com/

- Created and hosted for local children's storyteller
- Solo developer, written in NextJS
- Solo designer collaborating with entrepreneur
  - Custom website design, logos, and graphics

Portfolio Website — https://www.t2tech.info/

- Written in NextJS
- Web version of resume
- Displays experience, skills, and projects

Faug — DesktopApp **—** WebApp

- Minimoog Model D emulation
- GUI written in C++ with JUCE, DSP written in Faust
- Listed on official Power by Faust webpage
- Image assets created in Inkscape
- Currently recreating in NextJs

DeliveryTime — https://github.com/t2techno/DeliveryTime

- Originally created in one day with React Native and used on Android
  - Re-Written/designed in React for web
- Used for my wife's labor at home
- Keeps track of all relevant contraction info from one button
- Has a threshold with color-changing buttons to warn if water etc. is needed
- Open/Close logs to review labor

Svg2gui — https://github.com/t2techno/svg2gui

- Python cmdline program for gui creation, exported as portable .exe
- Takes in svg name, id string, and optional layer number
- Outputs relative x,y position and width/height of elements with id as useable cpp file
- Created so I only needed to position elements once between design and code

Sudoku Solver — https://github.com/t2techno/AIND-Sudoku_Project

- Python program that solves Sudoku puzzles
- Recursive algorithm utilizing constraint propagation techniques
- Solves diagonal sudoku puzzles in less than .01 seconds on personal laptop

Genetic alg. For Convolution Neural Net — https://github.com/t2techno/Kaggle-Fish-Detection

- Python using Tensorflow framework, developed in Jupyter Notebooks
- Created for Kaggle competition to improve score labeling 8-class dataset of fish in images
- Achieves 42% to 44% accuracy on 32x32 images after 2 training epochs