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JONATHAN TROWBRIDGE
SENIOR SOFTWARE ENGINEER

EDUCATION | **B.S. COMPUTER SCIENCE | VIRGINIA COMMONWEALTH UNIVERSITY '13**

EXPERIENCE

SENIOR ANDROID ENGINEER | COSTAR GROUP | RICHMOND, VA | JAN '20 - PRESENT

- Lead developer of an Android commercial real-estate listing management module and the supporting backend ASP.NET Core Web API
- Coordinated with internal and external team members throughout the software development lifecycle to ensure consistent high-quality product releases
- Provided guidance and feedback to the business and designers to help create a more familiar mobile user experience
- Continuous mindful adoption of Android architectural best practices and Kotlin language features
- Provided and received feedback through constructive collaboration with team

FULL STACK ENGINEER | COSTAR GROUP | RICHMOND, VA | JAN '19 – JAN '20

- Implemented internal and external commercial real-estate web applications using React
- Maintained and added new features to existing ASP.NET and NodeJS Web APIs to support frontend web and mobile applications
- Designed and built backing databases for Microsoft SQL Server
- Wrote a reusable application agnostic .NET Core push notification library for AWS
- Integrated push notifications within an existing iOS application to send information to CoStar researchers in the field

SOFTWARE ENGINEER | MAPLETON HILL MEDIA | BOULDER, CO | AUG '16 – FEB '18

- Developed various types of complex Android and iOS applications including, but not limited to, skiing, agriculture, inventory, and shipping using the Microsoft Xamarin Native and Xamarin Forms
- Implemented multifaceted ASP.NET Web APIs to back mobile applications
- Worked as part of a small, four-person team, to develop the Aspen Snowmass cross-platform mobile application for both Android and iOS
- Wrote complex PCL code for synchronizing shipping and inventory data between devices using the Azure Mobile App Service APIs
- Migrated parts of large, dated, monolithic APIs to smaller more manageable single responsibility services backed by unit tests
- Designed and built backing databases for Microsoft SQL Server

- Commonly wrote expressive LINQ queries varying from simple data manipulation to complex parallelized asynchronous tasks interacting with various APIs

APPLICATION DEVELOPER | WORLDVIEW | RICHMOND, VA | FEB. '13 – FEB '16

- Created a Watershed Pollution Management module for the Virginia Department of Environmental Quality using Backbone, Marionette, and ASP.NET Web API
- Developed a resource conservation management planning module for the Best Management Practice Tracking application utilized by the Virginia Department of Conservation and Recreation
- Implemented a complex claims-based authentication workflow that is utilized within the Storm Water Construction General Permitting application for the Virginia Department of Environmental Quality
- Created a claims-based user management web portal for a recruiting application utilized by the Air Force
- Worked as part of a team to develop a land and water resource planning software called Practice Keeper
- Migrated a non-profit website used to promote exercise in K-12 students from jQuery to Dojo

SOFTWARE DEVELOPER | GALLIUM TECHNOLOGIES | RICHMOND, VA | APR '12 – FEB '13

- Developed, documented, and deployed features into an existing MVC web application
- Updated legacy components for compliance with current web standards
- Maintained and administered a PostgreSQL database

ADMINISTRATIVE ASSITANT | MAYFAIR JOINT VENTURE | D.C. | MAY '11 – AUG '11

- Invoiced tenants and helped with the updating of tenant records
- Property and account management

QUALITY ASSURANCE INTERN | PREMATICS INC | VIENNA, VA | JUL '08 – DEC '08

- Developed integrations tests using Perl and the Selenium browser automation framework
- Managed various Python plugins for the Trac wiki and bug tracking system

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SIDE PROJECTS

MANEKI

A free and open-source aggregate search engine used to find torrent files and magnet links on Android. This native project wraps a custom embedded Xamarin bindings library for the popular torrent project, Jackett.

SIMPLE VLC PLAYER

An easy-to-use media player library for Android powered by libVLC and Open Subtitles. This project was written to support Bit Cast and expand the number of supported media types for playback and casting.

BIT CAST (DEPRECATED)

A free Android application that functions as a search engine, download client, and media player. The primary goal of this project was to be able to stream supported torrent media types locally or directly to Chromecast devices.

MATERIAL QA & BARCODE SCANNER

A barcode scanner that aims to be simple and easy to use. The primary goal of this project wasn't to be unique, but instead to experiment with machine learning and to learn about integrating AdMob into mobile applications. Due to the projects simplicity, it also has the added benefit of being a great reference for Dagger 2, Firebase Crashlytics, Firebase Analytics, Google AdMob, and the Google Maps API.

FFMEG GLIDE VIDEO DECODER

A Glide resource decoder powered by FFmpegMediaMetadataRetriever. The purpose of this library is to expand support for extracting thumbnails from different types of video media.

GAME OF LIFE LIVE WALLPAPER

Allows users to set their device home and lock screen as a configurable instance of John Conway's Game of Life.