Shravan Jambukesan
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Experience

Embedded ARM & Atmel AVR Development (November 2017 – present)

- Currently developing a fully wireless timing system for accurately timing track and field exercises such as the 40-yard dash (Working at Orchestrate HR)
- Prototyped using the Arduino MEGA (Atmel AVR), currently being redesigned using an ARM Cortex-M4F based SoC with integrated Bluetooth and RF for wireless communication. The system will also integrate LiDAR for collecting instantaneous velocity and acceleration data of the athlete during the run.
- Developed automated Atmel AVR and ARM firmware flashers using the Raspberry Pi with stlink, openocd, and avrdude

Microsoft Kinect for Windows Development (May 2017 - August 2017)

- Developed an application for weight lifting tracking using Microsoft Kinect for Windows at Orchestrate HR in Dallas, TX which is now being used by the University of Texas at Austin football team
- Developed an Arduino UNO based tilting mechanism for the Kinect V2 sensor using a Hitec digital servo. This is used for correcting the point of view of the camera for certain weight lifting exercises.

App Development Contracting (February 2017 – August 2017)

- Assisted with developing an app written in Xamarin Forms for AGR, LLC in Dallas, TX

Mobile App Development (June 2016 – August 2016, July 2017 – present)

- Developed an insurance ID card scanning app for Android and iOS while interning at Orchestrate HR in Dallas, TX
- Link for Android app on Google Play: https://play.google.com/store/apps/details?id=com.orchr.docscanner
- Link for iOS app on the App Store: https://appsto.re/us/7-2Ldb.i
- Developed a student athlete data tracking app using Xamarin Forms at Orchestrate HR in Dallas, TX
- Link for Android app on Google Play: https://play.google.com/store/apps/details?id=com.orchr.NExTT360&hl=en_US
- Link for iOS app on the App Store: https://itunes.apple.com/us/app/kongiq/id1365177772?mt=8
- Developed a HR resources and benefits app for internal employees and clients of Orchestrate HR using Xamarin Forms
- Link for Android app on Google Play: https://play.google.com/store/apps/details?id=com.orchr.MyORCHR&hl=en

- Link for iOS app on the App Store: https://itunes.apple.com/us/app/myorchr/id1425991084?mt=8

Web Development (February 2015 – present)

- Administered 2 websites (One static HTML and one Wordpress based)
- Worked with Apache HTTP server and MySQL running in Debian Linux
- Ran both sites concurrently from home using a Raspberry Pi
- Used CloudFlare, PHP-PAC, and various performance tweaks to maximize performance

Software Documentation/Setup (March 2015 – May 2015)

- Wrote a step-by-step guide titled "Hosted By Pi Guide" as part of a school project (https://shravanj.com/hostedbypi). It details how to setup and run your own website from home using a Raspberry Pi.
- Explained the basics of running a web server for beginners
- Wrote shell scripts for the automated setup of Apache HTTP server as well as package updates
- Wrote comments on popular free and redistributable HTML templates that help newcomers understand the basics of HTML code
- Developed a build system (https://build.shravanj.com) that allows committing of updates to the guide, shell scripts, and HTML templates on GitHub and have the changes synced with the downloadable zip file on my personal website

Linux Administration (Summer 2014 – present)

- Worked with various Linux distributions including Debian, Fedora, and different flavors of Ubuntu
- Understanding of basic Linux concepts such as file system hierarchy, package management, utilization of cron jobs for backups, and shell scripting
- Experience with headless (console-only) systems such as a Raspberry Pi server

C++/C Programming (August 2016 – present)

- Learning C and C++ concepts in various computer sciences courses at UT Dallas
- Programming of an ARM Cortex-M4 based SoC's application logic in C (utilizing the Wiring library)

Java Programming (November 2013 – present)

- Wrote an Android application in Java for a science fair project testing the effects of using NFC (Near Field Communication) services on Android device performance
- Wrote various programs for labs as part of my junior year AP Computer Science and senior year Honors Computer Science 3 courses
- Wrote a basic SD card stress testing tool for Android
- Wrote the NExTT Pic app for Android

Education

- Plano West Senior High School (2016)
- The University of Texas at Dallas – B.S in Computer Science with minor in Accounting (expected 2020)

Activities

- National Honor Society (2013 – 2016)
- Shepton & Plano West Quizbowl Teams (2013 – 2015)
- Plano West Computer Club (2015 - 2016)

Awards

- 3rd Place Special Award at the 2014 Dallas Regional Science and Engineering Fair – Awarded by Rockwell Collins for the Computer Science project "The Effect of Near Field Communication on Android Device Performance"

Skills

- Java Development (Android and Desktop)
- Windows Presentation Foundation (C#)
- Linux Administration
- Arduino prototyping
- Embedded development (ARM and Atmel AVR)
- Xamarin for iOS
- Xamarin Forms
- iOS and Android app deployment
- Shell Scripting
- Networking using SOAP and XML
- LEGO MINDSTORMS Development
- Software Documentation and Design
- User Interface Design (iOS and Android)
- Git
- ISP and SWD Programming

Volunteering

- 100+ hours volunteering for the Preston Lakes Home Owner's Association from 2011-2016
- 20+ hours volunteering for Seven Loaves Food Pantry in Plano, TX

References

- Muzzy Bass, CEO of Orchestrate HR (muzzy@orchr.com)
- Lance Wilson, Executive VP of Vivature (lwwilson@vivature.com)