

**Education:**

**M.Eng. Manufacturing Engineering**, *University of Michigan, Ann Arbor, MI, 2014*  
GPA 3.5 / 4.0

**B.Sc. Mechanical Engineering**, *University of Oklahoma, Norman, OK, 2013*  
GPA 3.75 / 4.0 (*Graduated with Special Distinction and a Mathematics Minor, Honor roll student*)

**Skills:**

Software, web and Android development (Java, C, C++, JavaScript, git, MEAN, HTML, CSS)  
Test Driven Development / Continuous Integration (Mockito, JUnit, Espresso, Jenkins)  
IoT API experience (Bluetooth 4.0, Wi-Fi Near Service Discovery, etc.)  
Black Belt Lean Six Sigma trained (DMAIC); tolerance analysis, process capability  
3D Modeling software (SolidWorks)  
ANSYS simulation software (CFD, structural analysis)  
Excellent teamwork, interpersonal, written and oral communication skills

**Experience:**

**Mobile Applications Developer**

*HelloWorld Inc., Southfield, MI, February 2016 – Present*

- Contributed significantly to the development stages of a new high visibility project and currently supports its maintenance and update cycles.
- Modified a gradle plugin to publish multiple product flavors and build variants of an App to the Google Play Store and HockeyApp.
- Utilized git flow extensively in version control, where feature branches were directly linked to JIRA tickets, merged into the develop branch, and the master branch was always clean.
- Partook in a highly collaborative and agile environment with daily scrum, weekly sprint planning, and frequent feedback sessions.
- Refactored existing projects to use the latest AppCompatActivity library classes and reactive patterns.
- Onboarded and supported a new Android developer, walking him through the company's mobile technology stack, code best practices and design patterns.

**Software Developer**

*MyFab5 LLC, Ann Arbor, MI, February 2015 – February 2016*

- Completely rewrote the MyFab5 Android app to be up to date with Google's material design.
- Used functional reactive programming (RxJava) to seamlessly perform asynchronous tasks without burdening the UI thread.
- Utilized Retrofit to implement an interface between the Android app and a RESTful JSON API.
- Gained experience with Android SDK specifics and the Gradle build system.
- Contributed to an internal marketing tool built with Angular, Ionic, and Cordova/PhoneGap.

**WuMRC Research Staff / Programmer Analyst**

*University of Michigan Wu Manufacturing Research Center, Ann Arbor, MI, May 2014 – February 2015*

- Developed the bill of materials, wrote Android Bluetooth low energy app (GATT client) and C++ code (GATT server), and helped create initial designs for a wearable bio-impedance monitor.
- Developed an algorithm to extract bio-impedance parameters from measured data.

**Graduate Projects:**

- Quality: Gained knowledge in Black Belt DMAIC Six Sigma with respect to statistics, lean operations, SPC, DOE, etc. Acquired proficiency with Microsoft Excel Macros and Minitab.
- Tutored students in Calculus, Physics, Thermodynamics, and Mechanical Engineering courses.

**Undergraduate Research:**

- Studied the propagation and effects of pressure waves on the human ear (utilized CFD analysis and CAD modeling extensively; ANSYS, Hypermesh and SolidWorks).

**Misc.:**

- "Big M" manufacturing conference and Detroit Maker Faire Volunteer with SME.
- Electronics hobbyist and open source software enthusiast with multiple contributions on Github.