Albert Armea [resume@albertarmea.com](mailto:resume@albertarmea.com) ∙ [albertarmea.com](http://albertarmea.com) ∙ [github.com/aarmea](https://github.com/aarmea)

# Work

**Microsoft** – Software Engineer *Redmond, WA; July 2014 – Present*

* Improved the accessibility of Word, Outlook, and Windows 10 Mail by implementing adjustable text scaling, populating the tree used by screen readers, and fixing issues in high contrast modes.
* Made images more usable by automatically shrinking large images in received emails and providing scaling options for inserted images when composing an email.
* Improved email rendering fidelity on high DPI displays by correcting how Word uses CSS pixels.
* Wrote integration tests for email authoring scenarios using Microsoft UI Automation.

**Google** – Software Engineering Intern *Mountain View, CA; June 2013 – August 2013*

* Extended APIs to an internal version control system, providing a unified way to view and manage changelists. These APIs are used to test and search Google’s codebase.

# Education

**Rensselaer Polytechnic Institute** *Troy, NY; August 2011 – May 2014*

* Bachelor of Science in Computer Science *cum laude*
* Computer Science GPA: 3.72 / 4.0 ∙ Cumulative GPA: 3.56 / 4.0

# Projects

Noise (Java, Android) *January 2017 – Present*

* Developing a completely peer-to-peer and infrastructure-free messaging protocol and app to enable communication when an Internet connection is unavailable, such as after a natural disaster.
* The protocol uses epidemic routing to ensure eventual message delivery, proof-of-work to mitigate spam, and end-to-end encryption to prevent eavesdropping.

Painting Sound (C++, Eigen; C#, Unity, Universal Windows Platform) *July 2016*

* Drove development of Microsoft HoloLens app allowing the hearing-impaired to visualize sound.
* Designed and prototyped a custom tetrahedral microphone that mounts to the HoloLens.
* Wrote signal processing algorithms to locate sounds in 3D space using this microphone.
* The app uses these sound locations to place visualizations in mixed reality.

Mumei (Python, OpenGL) *August 2012 – December 2012*

* Designed and implemented a game to teach players programming skills.
* Wrote the graphics backend and text editor using PyGame and OpenGL.
* Helped integrate a custom virtual machine and C compiler written in Python.

WindowGroomer (C++, Qt, Windows API, Xlib) *December 2012*

* Developed a user-friendly window manager for Microsoft Windows and X11.

# Skills

**Computer Languages and Frameworks:** C/C++, Java, Python, JavaScript, HTML, Unity, OpenGL

**Applications/OS:** Windows, Mac, Linux, Git, Vim, Visual Studio, Android Studio, Autodesk Fusion 360

# Awards

Microsoft, OneWeek Hackathon HoloHack First Place Winner *July 2016*

Rensselaer Polytechnic Institute, Dean’s List *Fall 2011 – Spring 2014*