Brendan Thompson

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EDUCATION

Transylvania University   **Lexington, KY**
BA in Computer Science, Psychology Minor, GPA: 3.441   *May 2018*

EXPERIENCE

Team Alpha Services   **Lexington, KY**
Web & Mobile Developer   *Oct 2017 - Present*
- Developed an Android mobile application for a client using Android Studio (*Java & XML*) that communicates with Firebase for user authentication as well as for data storage & retrieval
- Developed a hybrid mobile application for a client using the Ionic framework (*Angular, TypeScript, HTML, & CSS*) that communicates with Firebase Database and Firebase Storage for images
- Used *WordPress* to manage content & features on multiple different client websites

Awesome Inc U   **Lexington, KY**
Youth Coding Instructor   *Feb 2018 - Present*
- Helped students understand important software development concepts such as conditionals, iteration, object oriented programming, utilizing tools & frameworks, and the value of good documentation
- Led a summer camp developing a mobile app with Thunkable, a website with HTML & CSS, and a game with Unity

Awesome Inc   **Lexington, KY**
Web & Mobile Development Intern   *Aug 2017 - May 2018*
- Learned the Ionic hybrid mobile framework (*Angular, Typescript, HTML, & CSS*) in order to create the Awesome Check-In iPad app that alerts the appropriate team members via Slack of guests to the Awesome Inc space
- Managed content & features for Awesome Inc's suite of websites using tools such as *Jekyll & Bootstrap* and manipulating *GitHub & FileZilla* codebases in *JavaScript, Sass, CSS, and HTML*

IBM at Lexmark through Pomeroy   **Lexington, KY**
Tape Operator / Tier 1 Hands & Eyes   *Aug 2016 – Present*
- Rebooted servers, collected data on cables, escorted engineers, and handled other basic IT tasks in a secure IBM data center

PROJECTS

Formant Filter   **Max 7 Patch**
Max, MSP   *Nov 2017 – Dec 2017*
- Implemented a normalized, windowed, and overlapped Fourier Transform on complex sound waves to filter out all audio except from in bands around the three loudest frequencies
- Went above and beyond the course objectives by teaching myself the complex physics & mathematics behind the analysis of digital signals & sound waves

Audio Synthesis Summer Project   **Audio Synthesizer Desktop Applications**
JUCE Audio, C++   *Jun 2017 – Aug 2017*
- Taught myself the JUCE Audio C++ framework to develop an additive synthesizer that generates sine waves for selected intervals in the harmonic series given a fundamental frequency
- Generated digital signals by filling buffers with values based off of sine wave cycles at specified frequencies

BRENxSynth   **Max 7 Patch**
Max, MSP   *Oct 2017 – Nov 2017*
- Used the Max visual programming environment to develop an additive synthesizer and its module components which included three shape-controllable oscillators, an LFO, and an ADSR envelope

ADDITIONAL

- Competed in the 2017 NCAA DIII Men's Lacrosse Tournament with the Transylvania Pioneers
- **Languages**: C, C++, C#, Java, Swift, HTML, CSS/Sass, JavaScript, TypeScript, XML, Prolog, LISP, Visual Basic
- **Frameworks**: Android Studio, Xcode, Ionic 3, Angular, Bootstrap, WordPress, Jekyll, Unity, JUCE, Max MSP
- **Relevant Coursework**: Interface Programming, Principles of Programming Languages, Operating Systems, Compiler Construction, Game Design, Data Structures, Computer Organization, Computational Theory
- **Audio Tech Experience**: Intro to Music Technology, Interactive Music & Multimedia, Music Cognition, Automated MIDI File Production, JUCE C++ Framework, MAX/MSP, TouchOSC, Ableton Live, Pro Tools