

Sara Adkins

Computer Science and Music Technology

Contact

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Web & Git

saradkins.xyz
github.com/Satrat

Programming

C, C++, Python, Java,
SML, MySQL, C#

Software

Android Studio,
Matlab, Max MSP,
AutoCAD, Pro Tools

Awards

Deans List Spring '16.
Carnegie Mellon
Holleran Scholar.
Wilkins Scholarship
Recipient.

Relevant Coursework

Intro to Computer
Systems.
Data Structures and
Algorithms.
Principles of Functional
Programming.
Computer Music
Systems.
Multitrack Recording.
Sound Editing and
Mastering.

Education

2014-2018 **Carnegie Mellon University** Pittsburgh, PA
Bachelor of Science in Computer Science and Music Technology
Minor in Sound Design. **GPA: 3.55/4.0**

Work Experience

2016 **Media Systems Engineering Intern** Discovery Communications
Aided in the design and installation of virtual reality and 4K HDR video editing rooms. Developed code to automate quality control scans of incoming media. Redlined electrical drawings in AutoCAD.

2015-2016 **Research Assistant** Human Computer Interaction Institute
Designed a keyboard layout that uses localized vibrations to add haptic feedback to an Android tablet device. Investigated human response to various layouts and analyzed data using MySQL and Matlab.

Projects

2016 **Computational HDR Photography Application** Personal Project
Autonomously aligns and transforms 3 input photos into one HDR image. Uses tone mapping algorithm to display the image on a non-HDR monitor.

2016 **Autonomous Music Composition Algorithms** Robotics Club Project
Java application that uses markov chains and music theory idioms to algorithmically generate melodious music in 3 parts. The composition is performed on various robots interfaced with Arduinos.

2015 **Python Resume Parser** YHacks Hackathon Project
Scores a folder of resumes in several job categories using word banks. Extracts pertinent information from each resume, and sorts them by score in a Latex document for easy review of top candidates.

2014 **Kinect Theremin** Personal Project
Microsoft Kinect application developed using C# and Max MSP. Allows user to create expressive music using their own body as an instrument to shape the pitch and timbre of the sound.

Leadership

2014-now **Project Leader** CMU Robotics Club
Lead a student-run project that aims to design, build, and program robotic instruments that perform music from MIDI data. Manage funding, meetings and project goals. Organize campus performances throughout the year.

2015-now **Vice President of Finance** Project Ignite
Manage budget and secure funding for this startup student organization that aims to mentor high school students through project based learning.