

# Ian Rios

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## EDUCATION

### RENSSELAER POLYTECHNIC INSTITUTE (RPI)

Bachelor of Science, Computer Science with Computer Music Minor, *White Key Honor Society*

August 2014 – May 2018

Troy, NY

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## EXPERIENCE

### Researcher - Center for Cognition, Communication, & Culture, RPI

Spring 2017 – Winter 2017

- Lead undergrad research team of 12 for assistive music technologies to showcase during the International Symposium on Adaptive Technology in Music and Art (ISATMA) in October. In charge of creating software for sending audio and visual data over independent networks as well as delegating tasks to co-undergrad researchers. Worked in the Cognitive and Immersive Lab to develop software instruments for people with spinal cord injuries.
- Created and ran over 15 different experiments and presented results to the Board of Administration at the SUNY College of Nanoscale Science and Engineering.

### Software Development Consultant - My Music Machines, Albany Medical Center

Summer 2017

- Spearheaded the software design of the Jamboxx, a breath controlled MIDI instrument accessible to the disabled, by developing an interface for performance, education, and creation of music individually or within an ensemble. MMM is a startup that develops interactive lung function tests for children and the disabled using musical concepts and games.

### Undergrad Lab Assistant – Center for Biotechnology and Interdisciplinary Studies, Troy, NY

September 2014 – Present

- Assisted in updating Stem Cell Core Lab website using Wordpress. Assisted in the maintenance of lab facilities.
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## INDEPENDENT OPEN SOURCE PROJECTS

### RAAPT - Machine learning song generator

Spring 2017

- First Place in the 2017 RPI Undergrad Research Symposium in Computer Science with Humanities, Arts and Social Sciences.

### Barely Enough Ingredients - Recipe database and suggestion web application

Fall 2018

- Organizes favorite recipes and ingredients owned by a user and suggests recipes based on difficulty, similar favorite foods, time consumption and other similar metrics. Stores ingredient price, purchase location, and calendar data for meal planning.

### Borilliant - Course feedback system and class scheduler

Spring 2017

- Organizes student class feedback data to create a ranking of classes based on difficulty, time consumption and other similar metrics. Can be used to generate desired class schedules using the RPI course catalog.

### Grandulator – Ensemble performance instrument

Winter 2016

- Ensemble synthesizer that creates music by looping “grains” of audio to create spatial environments.
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## LEADERSHIP AND CO-CURRICULAR ACTIVITIES

### President – PULSE Artist Collective

September 2014 – Present

- Organized weekly workshops on music and visual production for People Using Live Software and Electronics (PULSE), a student-run club promoting integration of new technology to create engaging performances. Showcased and participated in student performances for audiences ranging from 50-500 in monthly stage performances.

### Spring 2017 PRB Chair – Alpha Phi Omega (National Service Fraternity)

September 2015 – Present

- Contributed over 1000 hours of community service over three years being an active brother. Led and planned numerous community service events and fundraisers. Planned Spring 2016 formal banquet for 30 brothers plus alumni. Managed rush budget and organized all events for the Fall 2016 semester. Organized pledge review board with Spring 2017 prospective members of 20 students to assess their progress in a professional setting.
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## SKILLS

- **Web Development:** Two years of experience in front end web development including HTML, CSS, JavaScript, AngularJS, NodeJS, and Ruby on Rails. One year of back end web development and server management using CPanel, MS SQL 2012, Python, JS, MongoDB, Ruby on Rails and some knowledge of SSL Certificates.

Website Reference and Portfolio: [ianrios.me](http://ianrios.me)

- **Programming Languages:** C, Python, C++, Java, Ruby, MIPS, x86, SQL, Prolog, Haskell, Oz, SALSA, & Erlang.
- **Operating Systems:** Windows, OS X, Ubuntu Linux, and Unix
- **Databases:** MySQL, MariaDB, and Windows SQL Server 2012-16, MongoDB
- **Music/DSP specific languages:** Max MSP, Java, C, Chuck, PureData, Supercollider, and Tidal
- **Other Software:** GitHub, Labview, Matlab, Ableton, Google Office, Microsoft Office, Dropbox Paint 3D, & Adobe Photoshop
- **Cooking Skills:** Knowledgeable in over 2,000 recipes and cooking techniques both self-taught and passed down
- **Notable Classes:** Cognitive Computing, Advanced Music and Sound Technologies, Applied Psychoacoustics, & Advanced Wave Field Synthesis