## Ian Rios

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## **EDUCATION**

## RENSSELAER POLYTECHNIC INSTITUTE (RPI)

August 2014 - May 2018

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

Troy, NY

#### **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.

#### 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.

**Grandulator** – Ensemble performance instrument

Winter 2016

• Ensemble synthesizer that creates music by looping "grains" of audio to create spatial environments.

Barely Enough Ingredients - Cognitive recipe suggestion website - in development

Fall 2017

Uses IBM's Bluemix to decide what recipes the user might be inclined to cook based on food preferences and recipe history.
 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.

### 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 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.

## **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 and some knowledge of SSL Certificates. Website References: synteen.club, and janrios.me
- Programming Languages: C, C++, Python, Java, MIPS, x86, SQL, Prolog, Haskell, Oz, SALSA, and 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, ChucK, PureData, Supercollider, and Tidal
- Other Software: GitHub, Labview, Matlab, Ableton, Google Docs, Microsoft Office, Paint 3D, and 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