

John Burnett

Multimedia Artist and Researcher

San Diego, CA
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Education

University of California, San Diego, La Jolla, CA Doctor of Philosophy in Music, anticipated 2021 Emphasis in Computer Music and Multimedia	2018 – Present
University of California, San Diego, La Jolla, CA Master of Arts in Music Emphasis in Music Composition and Computer Music	2016 – 2019
Oberlin Conservatory, Oberlin, OH Bachelor of Music Major in Music Composition and Technology in Music and Related Arts (TIMARA)	2012 – 2016

Advisors

Shahrokh Yadegari, UC San Diego	2017 – Present
Katharina Rosenberger, UC San Diego	2017 – 2021
Aaron Helgeson, Oberlin Conservatory	2014 – 2016
Josh Levine, Oberlin Conservatory	2012 – 2014

Professional Experience

University of California, San Diego – Qualcomm Institute Research Assistant Research in audio spatialization for real-time and virtual reality applications. Develops algorithms for spatialization and physical modeling. Builds virtual reality experiences spatialization technology using software such as Unreal Engine and Unity.	2017 – Present
University of California, San Diego – Qualcomm Institute IDEAS Series Technical Coordinator Co-coordinator and technical adviser for the IDEAS series at the Qualcomm Institute, which hosts residencies for the development of multimedia works.	2017 – Present

Oberlin Conservatory Research Assistant	2015 – 2016
Research in computer-aided composition and formalized music, development of software tools for generative score creation. Research led by Aaron Helgeson.	
Syndicate for the New Arts Director of Technology, Concert Coordinator, Teacher	2015 – 2016
Co-coordinator of concerts, director of technology, and music teacher for non-profit new music organization based in Cleveland, OH.	
Oberlin Conservatory Audio Department Recording Engineer, Supervisor	2014 – 2016
Recording, live sound, and broadcast engineer for Oberlin Conservatory productions.	

Teaching Experience

UC San Diego Teaching Assistant	2016 – Present
Teaching assistant for undergraduate music courses at UC San Diego. Teaches and moderates weekly sections in addition to grading assignments and exams.	
Syndicate for The New Arts Workshop Instructor	2016
Crafted workshops that exposed electronic and experimental music to Cleveland inner-city youth. These workshops were held at each of the branches of the Cleveland public library. Also helped instruct workshops on graphic scores, text scores, and conducting.	
Oberlin Conservatory Secondary Composition Teacher	2014 – 2016
Composition instructor for non-majors at Oberlin College and Conservatory and community members in Oberlin, Ohio.	

Residencies

Qualcomm Institute IDEAS Performance Series	2019
Banff Centre	2014

Technical Skills

Areas

Sound Design, Video Design, Digital Signal Processing, Digital Audio, Sound Spatialization, Computer Graphics, Virtual Reality, Embedded Programming, Sensors.

Programming Languages + Environments

C/C++, C#, Python, Haskell, Unix, OpenGL/GLSL, SuperCollider, Arduino, Matlab.

Audio Software

SuperCollider, Max/MSP+Jitter, Pure Data, REAPER, ProTools, IRCAM Suite.

Video/Graphics Software

TouchDesigner, Unreal Engine, VDMX5, openFrameworks, Unity, Blender, Adobe Premiere.

Additional Studies

Computer Science at Oberlin College 2013 – 2016

Courses in object-oriented programming, data structures, computer graphics, systems programming, and computer architecture.

ManiFeste 2014, l'Academie at IRCAM 2014

Courses in computer music, computer-aided composition, and IRCAM software.

Awards

Walter E Aschaffenburg Prize in Music Composition 2016

Oberlin College XARTS Award 2016

Oberlin Conservatory Dean's Scholarship 2012

Oberlin College Lucy L Lewis Scholarship 2012

Publications

Pisha, Louis et al. (2020). Approximate diffraction modeling for real-time sound propagation simulation. *The Journal of the Acoustical Society of America*, 148(4), 1922-1933.

<https://doi.org/10.1121/10.0002115>

Selected Works

<p>Becoming Virtual Reality Experience Role: Virtual Reality and Graphics Programming Funded by the San Diego Opera Hack grant. Opera Hack Virtual Panel hosted by Opera America, Fall 2020</p>	2020
<p>Virtualized Ecology // Prophylaxis // New Discipline Spatial Audio Installations San Diego Art Institute, San Diego, CA, Winter 2020</p>	2020
<p>Electric Fields Audiovisual Installation Role: Projection Design, Installation Design, and Sound Spatialization Collaboration with Katharina Rosenberger and Alexander Khalil. Gallery@Calit2, San Diego, CA, Spring 2019</p>	2019
<p>Molten Landscape Audiovisual Media and Dance Role: Concept, Projection Design, Sound Design Qualcomm Institute, San Diego, CA, Spring 2019 Presented as part of the IDEAS series at the Qualcomm Institute.</p>	2019
<p>Folds Multimedia Performance for Solo Violin, Electronic Sound and Projections Role: Projection Design Collaboration with Katharina Rosenberger and Miranda Cuckson. National Sawdust, Brooklyn, NY, Winter 2019 Presented as part of the Ferus Festival.</p>	2019
<p>Orogeny Audiovisual Media and Dance Role: Concept and Projection Design Qualcomm Institute, San Diego, CA, Winter 2019 Presented as part of the IDEAS series at the Qualcomm Institute.</p>	2019
<p>Pressure Field: Calzada Sound Installation Collaboration with the art collective AUDINT. Gallery@Calit2, San Diego, CA, Fall 2018</p>	2018

- Splay** 2018
 Audiovisual Installation
 UC San Diego, Winter 2018
 Shown at the Sonic Fluidities Conference hosted by UC San Diego.
- Before the horses crash into the ground, and then the ground...** 2017
 Theatrical Dance and Music Performance
 Role: Co-Creator, Sound and Projection Design
 Collaboration with Veronica Santiago Moniello, Ben Rempel, and Barbara Byers.
 Potiker Theater at the La Jolla Playhouse, Fall 2017
- assemblage** 2017
 Four Musicians, Live Electronics, and Projections
 Role: Composition, Sound and Video Design
 UC San Diego Concert Hall, Fall 2017
 Performed by Madison Greenstone, Michael Matsuno, Kyle Blair, and Ben Rempel.
- And Then You Wait...** 2017
 Theatrical Sound Installation
 Role: Co-Creator, Sound Design
 Collaboration with Lilly Padilla and Dylan Key.
 Without Walls Festival, Summer 2017
- fracture** 2017
 Audiovisual Installation
 Collaboration with Sage Jenson and funded by the Oberlin College XARTS Award.
 Aalto University, Summer 2017
 Premiered at the Science in Music and Computing conference in Helsinki, Finland.
- shards** 2016
 Fixed Sound and Video
 Role: Sound Design
 Collaboration with Sage Jenson.
 California Institute for the Arts, Spring 2017
 Shown as part of California Electronic Music Exchange Concert.

 Mills College, Spring 2017
 Shown as part of the California Electronic Music Exchange Concert.