

Léonard Roussel

Creative technologist, audio-visual engineer, sound designer

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Professional & academic experience (see [portfolio](#) for detailed project references)

- > **Arup • Senior Designer, Experiential Technology** ([selected projects](#))
New York (2016 - present) + Amsterdam (2015 - 2016)
 - > Experiential designer and technologist for the built environment • Architecture, art, and design
 - > Integrated multi-media experiences and systems • Engineering and technical documentation
 - > 3D modeling, simulation, prototyping, rendering • Multidisciplinary technical coordination
 - > Acoustic and sound design • Soundscaping, field recording, simulation • Immersive audio
 - > Project management and production • Client project and budget delivery • Commissioning and testing
- > **New York University Integrated Digital Media • Thesis Advisor, MSc program**
New York, 2019
 - > Thesis review & mentorship • Novel applications for audio descriptors extracted from human voice content
 - > Experimental process and results analysis, documentation, critique, final jury & discussion
- > **Arup • Intern, Acoustics + Audio-visual**
New York (2014) + Amsterdam (2013)
 - > Acoustics & building physics • 3D modeling • Sound field capture and simulation • Sound design
 - > Parametric design • Software development • Automation
- > **Institut de Recherche & Coordination Acoustique-Musique (IRCAM) • Research intern**
Paris, 2012
 - > Development of 3D audio analysis and synthesis tools to inform the research and development of cutting-edge spatial audio design software (Spat~ package for Max/MSP)
 - > Spatial audio data manipulation, automated audio processing, software development
 - > Experimentation and systematic testing in the IRCAM anechoic studios and performance room

Education

- > **Engineering degree** (equiv. MSc)
Civil engineering + acoustics major
2015, École Centrale de Lyon (FR)
- > **Master of Sciences**
Acoustics + signal processing
2015, Institut National des Sciences Appliquées de Lyon (FR)

Languages

- > **English:** fluent
- > **French:** native
- > **Dutch, German, Spanish:** basic

Awards & Recognition

- > **SciArt Magazine**
Culture of Contamination (12/2020) - [Scope](#)
- > **ACEC Engineering Excellence Gold Award**
[Sounds Of the Future City](#) (New York, 2020)
- > **Hack The Planet NY: Best Documentation**
[DIY DNA monitoring](#) (New York, 2016)
- > **[Bright 2](#) (Frame, 2015)**
[Resonanz](#)
- > **Animamus Art Salon NY**
[Kryptoflex](#) (New York, 2014)

Computational & C.A.D. skills

- > **3D Modeling & rendering**
Rhino + Grasshopper, SketchUp, 3DSMax, V-Ray
AutoCAD, Revit, Dynamo, Enscape, Twinmotion
- > **Creative coding**
TouchDesigner, Max/MSP/Jitter, Processing, Cinder, Openframeworks, Three.js, A-Frame, Arduino
- > **Programming environments**
Python, Java, C++, C#, GLSL, Javascript, HTML, CSS, Matlab
- > **Sound design**
Ableton Live, Logic, Reaper, Spat Revolution, IRCAM Spat~
- > **Adobe Creative Suite**
- > **Acoustic modeling**
CATT Acoustic, Odeon, EASE

Other interests & ongoing learning

- > **3D modeling, animation, rendering**
Houdini, Cinema4D, Substance, Unity, Unreal
- > **Music & performing arts**
Flute, choral singing, composition, DJing

2019 Tapestry Choir (NY)
2017 Young New Yorker's Chorus (NY)
2016 Sonic Acts Festival (NL) • Production assistant
2014 Winterreise C^{ie} Théâtre • Assistant stage director
2012 Nuits Sonores Festival (FR) • Production assistant
2012 Student Performing Arts Org. • Stage director