

Grégoire Locqueville

Engineer specializing in multidisciplinary digital creation tools

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Experience

Research Engineer

Jan. 2021 – Dec. 2023

Sorbonne Université — Institut d'Alembert

Paris, France

- Led the **transition** from prototype software into a finished digital music instrument, its **documentation** and its **distribution**: <http://chorus-digitalis.lam.jussieu.fr/voks.html>
- Conception and implementation of a **scientific protocol** to validate the instrument; subject recruitment and direction; result **quantitative and quantitative analysis**.

Ph.D. Researcher

Dec. 2018 – Jun. 2022

Sorbonne Université — Institut d'Alembert

Paris, France

- Conception, implementation and use** of the Voks music instrument.
- Research communication both in the **traditional form** of research articles and **international conference** presentations (*NIME 2019, Porto Alegre, Brazil; CMMR 2023, Tokyo, Japan*), and through **music performances** and participation to the prestigious *Guthman contest, Atlanta, U.S.A* (2nd prize).
- Intern supervision.

Teaching Assistant

2019 – 2021

Sorbonne Université

Paris, France

- Teaching**; pivotal role in **facilitation of instructional activities** while navigating the challenges posed by the COVID-19 pandemic.
- Courses taught : **Discrete Mathematics, Algorithmics**.

Engineering Intern

Sep. 2017 – Feb. 2017

Nagual Sounds

Berlin, Germany

Research and development on interactive **gesture-based music applications** (mobile apps and video games).

Education

Ph.D., Sorbonne Université, Paris, France

2022

ATIAM Masters, Sorbonne Université, Paris, France

2018

- Acoustics, Signal Processing, Computer Science** applied to Music
- Student project: Development of a **physics-based, real-time**, high-quality clarinet synthesizer: <https://www.youtube.com/watch?v=kJTrg8ovflk>

Master of Science, Centrale Paris, Châtenay-Malabry, France

2017

Major in Computer Science

Preparatory Classes, Collège Stanislas, Paris, France

2013

2-year intensive preparation for the highly selective French Grandes Écoles. Major: **Mathematics and Physics**; Option: **Computer Science**.

High School Diploma, Saint-Louis de Gonzague, Paris, France

2011

Major in science; with **highest honors**.

Skills

Languages

- French**: Native
- English**: Fluent
- German**: Basic proficiency

Programming Languages

Haskell, Python, Faust, Max/MSP, C, C++

Personal Projects

Musical Live-coding Tool

Amati: Free, open source **audio plugin** for live-coding in Faust, for musical performance and production: <https://github.com/glocq/Amati>

Musical Performance Tool

Galatea : A free, open source web application that turns any pointer-like device (mouse, graphic tablet...) into a **MIDI controller**: <https://github.com/glocq/Galatea>

Procedural Generation

Escherscape: A free, open source demo of **declarative procedural generation** in a FPS-like setting: <https://github.com/glocq/escherscape>

Artistic Practice

Music

- Computer Music.
- Piano, singing, violin.
- Individual and collective performance and practice
- Composition, performance and production** of original pieces: <https://www.youtube.com/@Fraccillion>

Acting

Part of several theater and musical student projects.