

# Francis Bégué

Programmer/Educator/Musician/Inventor

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## PROFESSIONAL EXPERIENCE

### **Develops the application 3DCompose © 2020 - present**

A tool for the composer that makes use of the 3D Harmonic Model.

### **Publish the application “DooBook” on the App Store - 08/2020**

Starts the company TritonLogic.

### **Inventor - 3D Harmonic Model - 2016~2020**

Invents and develops a visual representation of musical harmony based on the geometry of a Rhombus Dodecahedron lattice.

- Defines the twelve contexts types — intervallic structures made of twelve notes.
- Explores all context permutations — produced by a 6 notes union.
- Automates the context's permutations in a 3D space — modulation.

The model is written in C++11, Objective C and uses OpenGL. Presented the model at IRCAM (Paris, France) and at New England Conservatory (Boston, MA).  
US Patent #: 9947304.

### **Runs his construction company - 2001~2016**

Built, designed and managed major construction projects in Cambridge, MA, (US) and Metro-west.

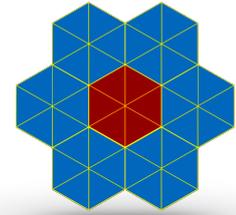
- Design, built and run major construction projects in the Boston (US) area.
- Drafted contracts
- Managed Client/Architect/Subcontractors and QA
- Designed Web sites and databases

### **Alpha Tester - Lexicon - 1990**

Tested Lexicon's famous MPX 1's embedded software and regularly communicated with the engineers.

### **Jazz Guitarist - always**

Performed in various jazz combos and jam sessions in the Boston and Metro-west areas. Performed with Rebecca Parris (2016) and Warren Vacher (2015).



## EDUCATION

### **M.S. Brandeis University** - 1999~2001

Master's degree in **Software Engineering**.

Courses included Advanced C++, Advanced Java, Database Management and Project Management.

### **M.M. New England Conservatory** - 1995~1997

Master's degree in **Music Education** with an emphasis on **Jazz Studies**.

Performed with the Gary Fieldman Jazz Ensemble.

### **B.M. Berklee College of Music** - 1986~1993

Bachelor's degree in **Professional Music**.

Twice a recipient off the Berklee Achievement Scholarship.

## ADDITIONAL QUALIFICATIONS

### **Computer Skills**

C++, Java, Objective-C, Python, Multi-Threading, Relational Databases, HTML, CSS, UML, XML, MySQL, OpenGL, GLFW, GLUT, QT, RtMIDI, JUCE, Git.

Familiar with Apache Tomcat, Ant, GlassFish, Xcode, VisualStudio, Code::Block, Eclipse, Git, Make, CMake, BBEdit, Sublime Text, StarUML, Diagrammix, Adobe Photoshop, Adobe Illustrator, Adobe AfterEffects, FileMaker, OmniPlan, Vectorworks, MacOSX, Linux, Windows.

### **Languages**

Native French speaker. Highly proficient in English. Passable in Spanish.

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