# Timothy O'Brien

119 Quillen Ct. #1213 – Stanford, CA 94305

☎ +1 (917) 280 4532 • ✉ tsob@ccrma.stanford.edu • ⌨ tsobrien.com

## Education

**Stanford University**                                                    **Stanford, California**

*MA, Music, Science and Technology*                    *September 2012–June 2014 (expected)*

Two-year Masters program at the *Center for Computer Research in Music and Acoustics*.
- Studies include computer music composition, human-computer interaction design, and digital signal processing
- Research focuses on complex system simulation for computer improvisation and real-time generative algorithmic composition
- Member of the Stanford Laptop Orchestra (SLOrk)
- Current GPA: 4.282/4.3
- GRE (*September 2011*): 170 Verbal (99th percentile), 168 Quantitative (96th percentile), 4.5 Analytical Writing (72nd percentile)

**University of Virginia**                                              **Charlottesville, Virginia**

*BS, Physics*                                                                     *August 2002–May 2006*

Distinguished major in physics, concentration in computational physics, and minor in anthropology.
- Studies included C/C++ programming for analysis and simulation of physical systems.
- Senior thesis examining the dynamics of shear transformation zones in amorphous solids via numerical simulation.
- Dean's List: Spring 2003, Fall 2003, Spring 2004, Spring 2005.

## Work Experience

**J.P. Morgan Chase**                                                       **New York, New York**

*Equity Research Assistant*                                              *Nov. 2006–Aug. 2012*

- Partnered with department management to analyze expenses and make recommendations for expense savings; led training on new automated and web-based systems to achieve significant cost savings during the financial crisis
- Coordinated with corporate investment bank clients, institutional investors, and national J.P. Morgan offices to organize industry conferences and corporate access events
- Updated, published, and distributed weekly valuation comparison databases for several sectors
- Identified and gathered key metrics for research publications and to fulfill client requests
- Member of several top *Institutional Investor*-ranked research teams; reported to three Executive Directors, one Vice President, and three Associates.

*Technology Consultant*                                                   *Sep. 2006–Nov. 2006*

- Facilitated the consolidation of all J.P. Morgan Equity Research Analysts' contact lists into a global database system using Microsoft Access and Excel and utilizing knowledge of SQL and Visual Basic
- Liaised with analysts and database architects to ensure a smooth rollout of the contact management product

## Musical Experience

**Bandleader**                                                                  **New York, New York**

*suiGeneris, Limehead*                                                    *Summers 2003–2005, 2006–2012*

Composed, performed, and recorded original musical works as leader of a progressive, alternative metal group at numerous venues throughout New York City. U.S. finalist in the international Emergenza battle of the bands competition. Produced numerous studio recordings of original material. Selected performance venues: Webster Hall, The Bitter End, Fat Baby, Don Hill's, CBGB.

**Guitarist**                                                                    **New York, New York**

*Um, Who's RVZ?*                                                           *2010–2011*

Lead guitarist for Brooklyn and Manhattan-based indie rock band *Um*; sole guitarist for *Who's RVZ?*, performing deep cuts from Van Halen, Led Zeppelin, and The Who at venues in Manhattan and Queens, New York.

## Skills

**Programming**: Python, C, C++, Processing, Arduino          **Applications**: GIMP, Frescobaldi, Audacity, Ardour

**DSP**: SuperCollider, PureData, ChucK, Matlab, Octave, JACK     **Web Technologies**: HTML, CSS, Jekyll, Joomla

**Systems**: Linux, Bash, Emacs, Vim, Git, Shell Scripting