

# Joel Mellin

An experienced, multi-faceted, and innovative arts technology professional

35 Claver Place #13, Brooklyn, NY 11238 | www.joelmellin.com | jmellin@gmail.com | 201-362-8661

## Skills

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### Internet and Education Technology

- Full-cycle application development and management for the education and arts industries:
  - Innovative online learning environments, instructional tools, and learning management systems (LMS) for education
  - Legal and fair online music licensing for the film, TV, advertising, and music industry
- Normalized database design for front-end and back-end use utilizing Entity Relationship Diagrams (ERD)
- Creation of custom Content Management Systems (CMS)
- Languages/Protocols: OO PHP 5, Java, jQuery, AJAX, XML, ASP, VBA, CSS, HTML
- Front-End: Mockflow Wireframing, Blueprint CSS, GD image processing, MVC frameworks (Yii)
- Back-End: LAMP environment, Netbeans and Eclipse IDEs, MySQL, Yii Framework w/ActiveRecord, Mercurial Version Control

### Non-Profit Leadership and Management

- Founding member of 501(c)3 arts not-for-profit with a mission to advance public interest in and understanding of the musical arts
- Work with business plans, budgets, and IRS forms
- Work with board members, artists, and interns
- Development of protocols and systems to facilitate distance interaction, communication, and voting

### Music Composition and Performance

- 10 year career developing unique computer-based applications for real-time performance, composition, and scoring.
- License works to filmmakers, performance and visual artists, and dance companies
- Retrospective book and CD published by Oakland-based Kolourmeim Press in 2009
- Member of Gamelan Dharma Swara and recently performed in the 2010 Balinese Arts Festival in Denpasar, Bali.

## Experience

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### Gotham Writers' Workshop

New York, NY

#### Senior Information Architect (May 2002-Present)

NYC-based creative writing school teaching classes online and in NYC to over 6K students/year

- Secure and maintain company's industry leading position by architecting and developing classroom and school management software
- Design, develop, and maintain all front-end websites and back-end database software including Classroom Software, Teacher and Student Information Systems, and customized classes for *Zoetrope: All Story* magazine and *the New York Times Knowledge Network*
- Innovate tools for online instruction, working directly with the Director of Online Services, Dean of Faculty, and the President
- Maintain high customer satisfaction ratings by providing technical support on a 24-hour turnaround time for all student inquiries
- Streamlined student registration and administration by designing a financial system that automated credit card processing
- Increased work-flow efficiency by developing a custom CMS, giving staff direct control of their content expertise

### Waxfruit Arts Media

Brooklyn, NY

#### Co-Founder | President | Director of Technology (April 2006-Present)

NY not-for-profit advancing public interest in the musical and contemporary arts

- Conceived of, designed, and developed FlickTracks - an aide to the community in legally licensing music for film, TV, and advertising
- Streamlined licensing process by automating the real-time generation of legal contracts as PDFs based on end-user license requests
- Developed an automated music consulting service using data mining techniques to pull from expert industry experience, National Endowment for the Arts (NEA) data, and client interviews
- Worked with lawyers, accountants, online merchant banks, board members, volunteers, and artists

### Metropolitan Center for Urban Education, New York University

New York, NY

#### Project Associate for Safe and Drug Free Schools (9/1999-3/2002)

Federally funded program to assist NYC public schools work with at-risk students

- Conceived of, designed, and developed a city-wide student information database application using Access and VBA
- Designed interactive online courses and taught training workshops to support project
- Participated in federal grant writing, research, data manipulation and analysis

### Cooperative Astrophysics and Technology Satellite (CATSAT), University of New Hampshire

New York, NY

#### Systems/Electrical Engineer (9/1998-9/1999)

NASA funded Gamma Ray Observation Satellite

- Designed space tolerant analog and digital systems using radiation hardened parts
- Developed automated hardware testing software for satellite power system using C and GPIB
- Managed staff of engineering students in all aspects of their work and conducted staff reviews

## Education

## Awards

- Masters of Music, Music Technology (2001)  
New York University
- Bachelors of Science, Electrical and Computer Engineering  
(1997) University of New Hampshire
- Guest Speaker (2008, 2007, 2006) for Java Music Systems: Real Time & Real World Performances, NYU
- Margaret Jones Award (2001) Winner for Java Music Systems, NYU

## Compositions

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### **The Anamnesis of Dreams (2011)**

Debut: TBA. For Rex Levitates Dance Company, Dublin, Ireland.

- With vocalist Catherine Hedberg, Violinist Willa Roberts, and Percussionist Michael Lipsey
- 24 minute piece in 6 movements consisting of Balinese Gamelan, Middle Eastern violin and percussion, voice, piano, and electronics

### **Vortex (2010)**

Debut: April 30th, 2010. The Chocolate Factory Theater, Long Island City, Queens, NY

- 20 minute real-time controllable audio tornado presented in a Vortitorium – a fully immersive multi-channel 3D audio environment
- Custom built tornado synthesis instruments with individually controllable pitch, angular velocity, and acceleration
- Performers induce wind and control acceleration by blowing into microphones
- Custom pitch detection algorithm using FFTs and Harmonic Product Spectrum analysis used with theremin controller to map pitch to cross fade from wind sounds to either pure sine waves or sound collages live during performance.
- Sound collages built from environmental recordings of city sounds (subway, protests, etc.) natural sounds (birds, frogs, etc. ), and electronic sounds (synthesized.) Some sounds files provide by other musicians.

### **Together / Apart (2010)**

Debut: April 30th, 2010 The Chocolate Factory Theater, Long Island City, Queens, NY

- With vocalist Catherine Hedberg and graphic artist Jeff Mellin; presented in the fully immersive Vortitorium .
- 15 minute modification of a pseudo-random melody and harmonization based on sampled recordings of vocalist
- Chance operations control melody notes sung, their timing, and Markov Chains control harmony based on early music progressions
- Melody notes move with constant velocity horizontally around the space while harmony voices choose random directions with increasing angular velocities
- Digital relays control lights placed in front of posters of the vocalist based on the angle of her voice in the Vortitorium

### **One Surface and Boundary (2010)**

Debut: April 30th, 2010. The Chocolate Factory Theater, Long Island City, Queens, NY

- With Victoria Lo, performing concurrently on the same instrument
- 8 minute piece for custom electronics and Balinese Semara Dana Pemade (metallophone)
- Drone instruments move in the Vortitorium space in random directions, but follow the pitch of the notes being played on the pemade
- Digital relays control lights based on the amplitude of sound produced by the impact of the wooden panguls (mallets) on the pemade.

### **A Passing Thought (2009)**

Debut: Sept 5th-12th, 2009. Smock Alley Theater. Dublin, Ireland

- For Piano, Jegogunk, Bass Harmonica and Whispers
- Custom sampling software chops and reconstitutes piece according to tempo and time signature
- Commission for *Quartet* by Rex Levitates Dance Company

### **Steam / Fans (2009)**

Debut: Feb 19th, 20th, 21st, 2009. The Kitchen, New York, NY

- Custom synthesized instruments modeled after oscillating fans and steam valves
- Commission for *Fanfare* by Jodi Melnick and Burt Barr – a 15 minute performance for 2 performers, 2 video projections, and 2 oscillating fans

### **Hooked the Scratcher (2008)**

Debut: Dec 13th, 2008. Catch Performance, Starr Space, Brooklyn, NY

- For Bass Harmonica, Sitar, and Toy Piano.
- Custom sampling software chops and reconstitutes piece according to tempo and time signature
- For *In 2002 we Hooked the Scratched Around Our Ears and Headed South: 3 Angels* by Holly Faurot and Sarah H. Paulson – a 7 minute performance for 3 performers, 3 video monitors, and live sampling

### **Must Pass (2008)**

Debut: Sept 4th & 5th, 2008 The Stella Adler Studio of Acting, New York, NY

- 30,000+ raindrops and 300 thunderclaps scored alongside evolving melody.
- Live melodies triggered and pitched by throwing rocks into a bucket filled with water, using a hydrophone to capture the sound.
- For *Your Beautiful Grunt* by Holly Faurot and Sarah H. Paulson - 30 minute performance for 8 performers, 3 video monitors, and video

### **Keys to the Crumbling City (2008)**

Debut: May 31, 2008. The Chocolate Factory, Long Island City, NY

- Autonomous synthesized Balinese Gamelan orchestra playing melodies loosely based on Gamelan Gong Kebyar structures.
- For *My Meaty Showers* by Holly Faurot and Sarah H. Paulson – a 20 minute performance for 5 performers, 2 video monitors, and video

### **Incandescent** (2007)

Debut: November 15, 2007. New York Center for Arts & Media Studies (NYCAMS), New York, NY

- A real time audio environment & composition consisting of harmonically aware synthesized fire
- For *Are You Going to Sweat on My Face, Again?* by Holly Faurot and Sarah H. Paulson – a 3-hour performance for 10 performers, 3 video monitors, neon, 4-channel video component (live & pre-recorded)

### **Watch What You Say! / Learning to Speak** (2007)

Debut: August 25, 2007 (WWYS) Projects in Transit (P.I.T.), Brooklyn, NY

- Genetic algorithms are used to investigate evolving words from random letter combinations.
- Populations are created, ranked, displayed, and spoken aloud by a voice synthesizer.

### **Perhaps I'll See You Again (Someday) / Demo** (2006)

Debut: November 30, 2006. Ronald Feldman Fine Arts, New York, NY

- A real time audio sample windowing and progression program to deconstruct multiple audio tracks and reconstruct them into longer pieces in rhythm at variable and user controlled tempos.
- For *I Want to See You Limp with Pleasure* by Holly Faurot and Sarah H. Paulson – a 2-hour performance for 12 performers, 5 video monitors, 5-channel video component (live & pre-recorded)

### **Aquarium** (2006)

Debut: July 8, 2006. Projects in Transit (P.I.T.), Brooklyn, NY

- For Fish Tank, metal pipes, balloons, tubes & audio processing - For *Aquarium* by Holly Faurot and Sarah H. Paulson – a 12 hour performance

### **You Have Access / My Cold Limbs** (2006)

Debut: March 15, 2006. New York Center for Arts & Media Studies (NYCAMS), New York, NY

- First incarnation of the real time audio sample windowing and progression program to deconstruct multiple audio tracks and reconstruct them into longer pieces in rhythm at variable and user controlled tempos.
- For *You Have Access to my Cold Limbs* by Holly Faurot and Sarah H. Paulson - 2-hour performance / installation for 12 performers, 6 video monitors, 2-channel video component (live & pre-recorded)

### **(s)warm** (2005)

Debut: July 30, 2005. Projects in Transit (P.I.T.), Brooklyn, NY

- A swarm of insects follow and play a score
- For *Spring Fever* by Holly Faurot and Sarah H. Paulson - 2-hour performance / installation for 5 performers, 4 video monitors, 2-channel video component (live & pre-recorded), 800 lbs of dirt

### **Sunset Beach** (2004)

Debut: September 25, 2004. Projects in Transit (P.I.T.), Brooklyn, NY

- An autonomous surf-rock band creates and performs pseudo-random instrumental music
- For *Sunset Beach* by Holly Faurot and Sarah H. Paulson

### **Somnialis** (2001)

Debut: May 10, 2003. Space 317, Brooklyn, NY

- Composition based on slowly evolving melodies and syncopation
- For *In/On Strap[ing]* by Holly Faurot and Sarah H. Paulson

### **Big Bang Theory #1** (2001)

Debut: May, 2001. New York University, New York, NY

- Demonstration piece for a sonar controlled MIDI instrument, the Sonaphone
- Composed while at NYU for a classes in Advanced Computer Music Composition and Java Music Systems

## Discography

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### Books

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**Joel Mellin: Compositions for Computer: Volume 1** (2009)

Kolourmeim Press / Musique Impossible (USA) | Author

### Recordings & Scores

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**Must Pass** (2010)

Musique Impossible (USA) | LIMITED EDITION 12" Vinyl – 100 signed and numbered.

**Steam / Fans** (2009)

Musique Impossible (USA) | LIMITED EDITION Hand Bound Scores / CD Set – 10 signed and numbered

**Play Some Pool, Skip Some School, Act Real Cool** (2009)

Where it's at is Where You Are (UK) | Contributed 'The Rising' to this Bruce Springsteen tribute compilation album

**Joel Mellin: Compositions for Computer: Volume 1** (2008)

Musique Impossible (USA) | LIMITED EDITION – 100 signed and numbered

**Hotel Harrison: An Elegy for George Harrison** (2006)

Stereorrific Recordings (USA) | Contributed Somnialis

**Miss Mary: Ready 2 Pop** (2005)

*Stereorrific Recordings (USA) / WIAIWYA (UK)* | Writer, Musician, Producer, Engineer, and Mastering

**I'm with Cupid: A Waxfruit Transatlantic Valentine** (2004)

*Stereorrific Recordings (USA) / WIAIWYA (UK)* | Producer of Compilation, Contributed 2 tracks

**50,000,000 Elves Fans Can't be Wrong: A Transatlantic Pop Christmas** (2002)

*Stereorrific Recordings (USA) / WIAIWYA (UK)* | Producer of Compilation, Contributed 1 track

**Miss Mary: Hey Blue** (2000)

*Stereorrific Recordings (USA) / WIAIWYA (UK)* | Musician, Producer, and Engineer

**The Oscillators: Incog-neat-o!** (2000)

*Stereorrific Recordings (USA)* | Writer, Musician, Producer, and Engineer

**The Oscillators: Let's Rock Instead** (1998)

*Stereorrific Recordings (USA)* | Writer, Musician, Producer, and Engineer