

# Kate Compton

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## CONTACT

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**Website:** www.galaxykate.com, @galaxykate,  
www.brightspiral.com

## OBJECTIVE

4th year PhD candidate in computer science seeking summer 2015 internship in either software engineering, information visualization, or design-focused prototyping. My research focuses on the development of AI tools to augment user creativity, especially in casual or playful audiences. I specialize in designing and implementing systems that assist users in quickly moving through the possibility space of a creative problem, systems which have included a design tool for 3D printable necklaces, music visualizations animations, laser-cut robots, and gameplay for a game to crowdsource network security.

## SKILLS

**Programming languages:** Java, JavaScript, HTML5, Answer Set Programming  
**Technologies:** Kinect and LeapMotion motion tracking, procedural generation and generative methods, many AI techniques, basic Bayesian machine learning, WebGL, Processing, Three.JS, 3D printing, laser-cutting.

## WORK EXPERIENCE

UCSC Oct 2012 — Present  
Graduate Research Assistant

Xylem: developed procedurally generated flowers, BotPrint: redesigned and implemented the second iteration, led a team of 4-8 people to continue development, Safe Passage: implemented prototype, continuing to contribute to development

self 2011 — present  
Independent game developer

Developed numerous games, design tools and interactive prototypes, available at www.galaxykate.com. One game, Stellar, has been featured with a feature story in the San Jose Mercury and Santa Cruz Sentinel ([http://www.mercurynews.com/science/ci\\_25139849/ucsc-students-design-video-game-aimed-at-making](http://www.mercurynews.com/science/ci_25139849/ucsc-students-design-video-game-aimed-at-making)).

UCSC July 2012 — Sept 2012  
Teacher

Computer Science 179: Taught upper division game development seminar (CMPS179) using Javascript. COSMOS summer enrichment program: Taught into game development to ~20 high school students for a summer course.

Electronic Arts Sept 2006 — Aug 2011  
Technical Artist

- Developing special effects for games like Spore, DarkSpore and SimCity
- Scripting behaviors for SimCity
- Presented industry-leading procedural terrain generation at SIGGRAPH 2007

Electronic Arts Jun 2005 — Aug 2005  
Intern

Designed and built early experimental prototypes of astronomical phenomena for Spore

## EDUCATION

PhD Computer Science

Sept 2011 — Present

University of California, Santa Cruz

Graduate researcher in the Expressive Intelligence Studio

### Awards

2011 UCSC Chancellors Fellowship

2013 SPIN game development grant (Stellar)

2013 Intel University Games selection (Stellar)

2014 UCSC Chancellor's Teaching Fellowship

Presented at numerous conferences and workshops, both in academia and industry

MS in Information Design and  
Technology

Sept 2004 — Jun 2006

Georgia Institute of Technology

Master's thesis has 68 citations in Google Scholar.

<http://www.aaai.org/Papers/AIIDE/2006/AIIDE06-022.pdf>

BA in Media Studies

Sept 1999 — June 2004

Pomona College

## PUBLICATIONS

**Tracery: Approachable Story Grammar Authoring for Casual Users**

K Compton, B Filstrup, M Mateas

Proceedings of the Intelligent Narrative Technologies Workshop, 2014.

### Generative Methods

K Compton, JC Osborn, M Mateas

The Fourth Procedural Content Generation in Games workshop, 2013

### Anza island: Novel gameplay using ASP

K Compton, A Smith, M Mateas

The Third Procedural Content Generation in Games workshop, 2012

### Procedural Level Design for Platform Games.

K Compton, M Mateas

Artificial Intelligence in Digital Entertainment, 2006.

### Presentations and panels

2007 SIGGRAPH, "Creating Spherical Worlds"

2010 Foundations of Digital Games Conference "What are the hard problems in Procedural Generation"

2011 Hackers Conference: "Playful software tools for personal fabrication"

2014 Asilomar Microcomputer Workshop "Making software for creative people (who don't believe that they're creative yet)"

2014 Grace Hopper Conference: "New Perspectives on Gender Inclusive Game Design"

Numerous microtalks at Lost Levels, QGCon, Hackers, Asilomar Microcomputer Workshop

## INVENTIONS

Co-founded Seebright Inc, a startup to develop an inexpensive VR/AR helmet I invented. Several patents pending.

Developed cloth-based projection touch screen, which was shown at Burning Man and Silicon Valley 3D Vision & Kinect Hacking meetup.