

# CURRICULUM VITAE

**Juliet N. P. Norton**

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## EDUCATION

<b>Doctor of Philosophy in Informatics</b>	<b>2019</b>
University of California, Irvine	
<b>Master of Science in Computer Science</b>	<b>2010</b>
University of Central Florida	
<b>Bachelor of Arts in Digital Media</b>	<b>2007</b>
University of Central Florida	

## RESEARCH APPOINTMENTS

Graduate Research Assistant	Social Code Group, University of California, Irvine	<b>2013-2019</b>
Research Staff	Social Code Group, University of California, Irvine	<b>2013</b>
Graduate Research Assistant	ISUE Lab, University of Central Florida	<b>2009-2013</b>
Graduate Research Assistant	SREAL and E2i, University of Central Florida	<b>2008-2009</b>
Research Staff	MCL (now E2i), University of Central Florida	<b>2007-2008</b>

## RESEARCH EXPERIENCE

### University of California, Irvine

*Dissertation: Information Systems for Grassroots Sustainable Agriculture* **2015-2019**

I studied the practices, values, and information challenges two grassroots sustainable agriculture communities and worked with them to develop a database that supports their practices and values and addresses a subset of their information challenges. This research is a subset of the work being done for the NSF CyberSEES project, listed below. My responsibilities include project management, system design, interaction design, development.

*NSF CyberSEES: Fostering Non-Expert Creation of Sustainable Polycultures* **2015-2018**

*through Crowdsourced Data Synthesis.*

SAGE is the manifestation of the collection of software tools being built for the NSF CyberSEES awarded project titled *Fostering Non-Expert Creation of Sustainable Polycultures through Crowdsourced Data Synthesis*. My responsibilities include project management, participatory observation of grassroots sustainable agriculture movements, requirements engineering, system design, interaction design, and development. I managed a team of ten students and graduates for this project.

*Plant Guild Composer* **2011-2014**

The Plant Guild Composer is an early manifestation of one of the pivotal applications in the SAGE framework and was the mechanism by which the SAGE project was imagined. My responsibilities included management, participatory observation of grassroots sustainable agriculture movements, prototype development. I managed five undergraduates for this project. This work has been published at CHI Interactivity in 2014, the RE workshop for Sustainable Systems in 2013 and the CHI Simple, Sustainable Living workshop in 2012.

## University of Central Florida

*NSF Creative IT: Minds of Chimera and Lunar Quest CLEM* **2009-2012**

Lunar Quest CLEM was a Multiverse MMORPG for teaching physics concepts via constructing physics experiments in game. Minds of Chimera was a collection of STEM education activities built as mods in Minecraft. My responsibilities included educational content delivery design, game play design, development. Managed a team of three undergraduates for both projects. This work has been published as a CHI work-in-progress and a CHI Extended Abstract in 2012.

*NSF DRL: Water's Journey Through the Everglades* **2007-2009**

This project involved the development of 10 kiosks that explored ecological change in the Florida Everglades and associated systems. The kiosks are on display at the Museum of Discovery and Science in Ft. Lauderdale, FL. My responsibilities included content research and experience design; lead developer of kiosk that simulated human encroachment on native fauna; focus group facilitator; and experiment moderator for iterative design studies.

*Exploring Full Body Navigation Interfaces* **2009-2010**

This study explored how participants might naturally use only their body to direct an avatar through a virtual environment. Using wizard-of-oz methodology I navigated participants through the virtual environments in the popular game *Mirror's Edge* according to their physical actions. My other responsibilities included study design, recruitment, and facilitation; building information tools to capture data; and data analysis. This research was published at Foundations of Digital Games in 2010 and presented as a poster in the ACM Student Research Competition at Grace Hopper Celebration in 2010.

*NIH AREA: Using Mixed Reality to Build Peer Resistance Skills in Latina Middle Schoolers* **2008, 2012**

This project entailed the development of a game called Drama-Rama that provides children and adolescents opportunities to practice resisting peer pressure. My responsibilities included focus group facilitator and experiment moderator.

*RDECOM: M4* **2009**

*M4* was the fourth iteration of MR MOUT, a testbed for military training simulations in the context of urban terrain. My responsibilities included story flow and situational awareness design for both projects; integrating all assets into our MR engine; assisting in experiment design; assisting in experiment facilitation.

*Virtual Reality Medical Center (VRMC): MR Warehouse* **2008**

*MR Restaurant* was a proof of concept for the technical feasibility of the MR environment designed to measure the affective response of persons who stutter when presented with an everyday life experience. My responsibilities included asset creation, integrating asset into our MR engine, and experiment moderation.

*RDECOM: Lunar Lunge* **2007**

*Lunar Lunge* was a youth-friendly experience built on the MR MOUT testbed to understand more about the next-generation talent that will be using emerging MR technology. My responsibilities included story flow and situational awareness design for both projects; establishing a production pipeline; integrating all assets into our MR engine; supplemental 3D modeling; assisting in experiment design; assisting in experiment facilitation; and assisting in data analysis.

*VRMC: Smash Me* **2007**

*Smash Me* was a proof of concept of the technical feasibility of the MR environment as a physical rehabilitation tool for patients needing upper body extremity rehabilitation, whether from a stroke or other impairment. My responsibilities included asset creation, integrating asset into our MR engine, and experiment moderation.

*VRMC: MR Restaurant* **2007**

*MR Warehouse* was a proof of concept for the technical feasibility of the MR environment to capture and analyze requested data in support of creating an assessment tool for soldiers suffering from traumatic brain injury (TBI). My responsibilities included asset creation, integrating asset into our MR engine, and experiment moderation.

## PUBLICATIONS

### Conference Proceedings

C7. Barath Raghavan, Bonnie Nardi, Sarah T. Lovell, **Juliet Norton**, Bill Tomlinson, and Donald J. Patterson. Computational Agroecology: Sustainable Food Ecosystem Design. In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pp. 423-435. ACM, 2016.

C6. Bill Tomlinson, **Juliet Norton**, Eric PS Baumer, Marcel Pufal, and Barath Raghavan. Self-obviating systems and their application to sustainability. *iConference 2015 Proceedings* (2015).

C5. Birgit Penzenstadler, Bill Tomlinson, Eric Baumer, Marcel Pufal, Ankita Raturi, Debra Richardson, Baki Cakici **et al.** ICT4S 2029: What will be the systems supporting sustainability in 15 years. In *Proceedings of the 2014 conference ICT for Sustainability*, vol. 2, pp. 30-39. Atlantis Press, 2014.

C4. Eric PS Baumer, June Ahn, Mei Bie, Elizabeth M. Bonsignore, Ahmet Börütecene, Oğuz Turan Buruk, Tamara Clegg **et al.** CHI 2039: speculative research visions. In *Proceedings of the 2014 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '14), pp. 761-770. ACM, 2014.

C3. **Juliet Norton**, Alex J. Stringfellow, Joseph J. LaViola Jr., Birgit Penzenstadler and Bill Tomlinson, Plant Guild Composer: A Software System for Sustainability. In: Proceedings of the 2nd International Workshop on Requirements Engineering for Sustainability (RE4SuSy). Rio, Brazil, July 15, 2013, CEUR-WS.org, online at CEUR-WS.org/Vol-995.

C2. Chadwick Wingrave, **Juliet Norton**, Christopher Ross, Nathan Ochoa, Sergiu Veazanchin, Emiko Charbonneau, and Joseph LaViola. 2012. Inspiring creative constructivist play. In *Proceedings of the 2012 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '12). ACM, New York, NY, USA, 2339-2344.

C1. **Juliet Norton**, Chadwick A. Wingrave, and Joseph J. LaViola, Exploring Strategies and Guidelines for Developing Full Body Video Game Interfaces. In *Proceedings of the Fifth International Conference on the Foundations of Digital Games (FDG '10)*. Monterey, California, June 19-21, 2010. ACM, New York, NY, 155-162.

### **Workshop Papers and Posters**

W5. Ankita Raturi, **Juliet Norton**, Bill Tomlinson, Eli Blevis, and Lynn Dombrowski, Designing Sustainable Food Systems. 2017. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, pp. 609-616. ACM, 2017.

W4. **Juliet Norton**, Accounting for Potentially Detrimental Unintended Impacts in HCI. 2014. In *Proceedings of What have we learned? A SIGGCHI HCI & Sustainability Community Workshop*. At ACM CHI 2014 Conference on Human Factors in Computing Systems. Toronto, CA.

W3. **Juliet Norton**, Alex J. Stringfellow and Joseph J. LaViola Jr., Domestic Plant Guilds: A Novel Application for Sustainable HCI. 2012. In *Proceedings of Simple, Sustainable Living Workshop*. At ACM CHI 2012 Conference on Human Factors in Computing Systems. Austin, TX. 4 pages.

W2. Chadwick Wingrave, **Juliet Norton**, and Joseph J. LaViola Jr., Using Minecraft for Instruction and Creative Play. 2012. In ACM CHI 2012 Conference on Human Factors in Computing Systems, Educational Interfaces, Software, and Tech Workshop. Austin, TX. 4 pages.

W1. **Juliet Norton**, An Exploration of Intuitive Travel Techniques for Full Body Video Game Interfaces. 2010. Presented at the ACM Student Research Competition at Grace Hopper Celebration of Computing. Atlanta, GA. Poster.

### **Magazines**

M3. **Juliet Norton**, Ankita Raturi, Bonnie Nardi, Sebastian Prost, Samantha McDonald, Daniel Pargman, Oliver Bates, Maria Normark, Bill Tomlinson, Nico Herbig, Lynn Dombrowski. 2017. A Grand Challenge for HCI: Food + Sustainability. In *interactions*, 24, 6, (November 2017), 50-55.

M2. Birgit Penzenstadler, Ankita Rauturi, Christoph Becker, **Juliet Norton**, Bill Tomlinson, Six Silberman, and Debra Richardson. 2015. Bridging communities: ICT4Sustainability @iConference 2015. In *interactions* 23, 1 (December 2015), 64-67.

M1. Bill Tomlinson, Donald Patterson, Yue Pan, Eli Blevis, Bonnie Nardi, Six Silberman, **Juliet Norton**, Joseph LaViola Jr. 2012. What if Sustainability Doesn't Work Out? In: *interactions* 19, 6, (November 2012), 50-55.

## MENTORSHIPS

Informal	University of California, Irvine. Mentored Jason Huang and Matthew Nguyen on component of NSF CyberSEES project.	<b>Summer 2018</b>
Independent Study INF 199	University of California, Irvine. Mentoring Xin Hu on a component of the NSF CyberSEES project.	<b>Spring 2016</b>
Informal	University of California, Irvine. Mentoring Katarina Michel on educational and development programs at the UCI Permaculture Research Area in the UCI Arboretum.	<b>Fall 2016 – Spring 2017</b>
Independent Study INF 199	University of California, Irvine. Mentoring Xin Hu, Daniel McInnis, and Kevin Li on various components of the NSF CyberSEES project.	<b>Fall 2016</b>
SURF IoT	University of California, Irvine. <i>SURF IoT</i> – Co-mentored Xin Hu in datamining social media for plant data research.	<b>Summer 2016</b>
Independent Study INF 199	University of California, Irvine. Mentored Sahand Nayabaziz and Dinorah Carrion in early investigations of information systems for sustainable agriculture research.	<b>Fall 2013</b>
Independent Study INF 199	University of California, Irvine. Mentored Sahand Nayabaziz, Sean Burke, Dinorah Carrion, B. Jack Pan, and Anna Slykhous in early investigations of information systems for sustainable agriculture research.	<b>Winter – Spring 2013</b>

L.E.A.R.N	University of Central Florida. Mentored a freshman in computer science games research	<b>Fall 2011 – Spring 2012</b>
Workforce Central Florida	University of Central Florida. Mentored a freshman in an original Computer Science research project.	<b>Fall 2012</b>

## TEACHING EXPERIENCE

Instructor of Record	<i>Global Disruption and Information Technology-</i> University of California, Irvine Online UC-Wide course of 170 students.	<b>2018</b>
Graduate Teaching Assistant	<i>Global Disruption and Information Technology-</i> University of California, Irvine Online UC-Wide course of 223 students. Primary TA for 73 students across 4 Discussion Groups.	<b>2016</b>
Graduate Teaching Assistant	<i>Organizations and Information Systems-</i> University of California, Irvine Writing class. Recitation instructor for one 50-minute section of 40 students that focused on written assignments.	<b>2014</b>
Course Designer	<i>Global Disruption and Information Technology-</i> University of California, Irvine Member of design team for online UC-Wide course.	<b>2014</b>
Graduate Teaching Assistant	<i>Environmental Issues in Information Technology-</i> University of California, Irvine TA for approximately 110 students. No recitation.	<b>2013</b>
Graduate Teaching Assistant	<i>Concepts in Computer Science-</i> University of Central Florida	<b>2012</b>



Recitation instructor for two 50-minute sections of 25 students each.

Graduate Teaching Assistant     *Burnett Honors College Summer Institute-*     **2011**  
University of Central Florida

Recitation instructor for 3-week computer science summer camp for high school students.

## TRAINING AND OTHER EDUCATION

*Preparing Tomorrow's Faculty Program, UCF*     **2012**  
Engaged in 10-week training to design courses and teach at the university level. Produced a first draft of a teaching portfolio.

*Plant Pathology, Valencia College, Orlando, FL*     **2011**  
An undergraduate semester course in the Horticulture and Technology Department

*Intro to Horticulture, Valencia College, Orlando, FL*     **2011**  
An undergraduate semester course in the Horticulture and Technology Department

*Permaculture Design Certification, Simple Living Institute, Orlando, Florida*     **2011**

## GUEST LECTURES

Reimagining the Suburban Landscape     **Spring 2014**  
Class: Urban Sociology (PPD 40),  
University of California, Irvine

Plant Guild Composer: Applying your profession to what you care about     **Fall 2013**  
Class: Environmental Issues and Information Technology (ICS 5),  
University of California, Irvine

Plant Guild Composer: An IT solution for sustainable agriculture design     **Winter 2013**  
Class: Environmental Issues and Information Technology (ICS 5),  
University of California, Irvine

The Plant Guild Composer and local food security in UCI communities     **Spring 2013**  
Event: Gather Lunch, Environment Institute,  
University of California, Irvine

## PROFESSIONAL SERVICE

Gathering of Open Agriculture Technology (GOAT) – Co-organizer	2018-2019
Biddy GOAT at USDA ARS – Co-organizer	2018-2019
iConference – Student Volunteer (SV)	2019
Workshop on Long(er) Term Design Thinking – Methods demo	2018
Designing Sustainable Food Systems Workshop – Co-organizer	2017
Mind, Culture, and Activity – Paper Reviewer	2016
CHI 2017– Paper Reviewer	2016-2017
CHI 2016– Paper Reviewer	2015-2016
ICT4S – Paper Reviewer	2014
CHI 2014 – SV	2014
Joint Virtual Reality Conference of EuroVR – Paper Reviewer	2012
Grace Hopper Celebration of Women in Computing – SV	2009

## AWARDED GRANTS

<i>UCI The Green Initiative Fund: Wildflowers at the UCI Permaculture Research Area</i>	2017
Principle Investigators: Katarina Michel, <b>Juliet Norton</b> , Bill Tomlinson, Peter Bowler. Awarded Amount: \$108.15.	
<i>UCI The Green Initiative Fund: Planting Edible Natives</i>	2016
Principle Investigators: Ezra Monroy, <b>Juliet Norton</b> , Bill Tomlinson, Peter Bowler. Awarded Amount: \$400.00.	

*NSF CyberSEES: Fostering Non-Expert Creation of Sustainable Polycultures through Crowdsourced Data Synthesis* **2015**  
 Principle Investigators: Bill Tomlinson, Don Patterson, Sarah Taylor Lovell. **Juliet Norton** made significant contributions to the project concept, proposal writing process, and funded research. Awarded Amount: \$398,838.00.

## **ACADEMIC AWARDS**

*Graduate Assistance in Areas of National Need (GAANN) Graduate Fellowship.* Award Amount: quarterly tuition and stipend. **2016-2019**  
*UCF Alumni: Graduate Scholarship.* Awarded Amount: \$1,000. **2012**  
*UCF CECS: David T. and Jane McDonaldson Memorial Foundation Scholarship.* Awarded Amount: \$2,500. **2011, 2012**  
*UCF College of Graduate Studies: Best Poster at UCF Graduate Research Forum.* Awarded Amount: \$500. **2010**

## **COMMUNITY INVOLVEMENT**

### **Sustainability, Human Security, and Gardening**

The Ecology Center – Eco Kids Volunteer **2018**  
 UCI Arboretum Permaculture Research Area – Project coordinator **2015-2018**  
 California Higher Education Food Summit (C.H.E.F.S.) – Organizer and host for workshop titled “Growing Food in the Neighborhood” **2016**  
 UCI in Solidarity with Orlando – Co-host of nature walk, reflection, and guided meditation event in the wake of the Pulse Nightclub tragedy in Orlando, FL **2016**  
 UCI Earth Week – Organizer and Host for workshop series entitled “Planting Edible Natives” **2016**  
 UCI Campus as a Living Lab: Seed to Plate Workshop Series – **2015**

Organizer and host of one workshop entitled “Native Food Forests”	
The Ecology Center – Guest Instructor	<b>2015</b>
The Ecology Center – Secondary facilitator for Eco-Apprentice course	<b>2014</b>
UCI Food Conference – Co-organizer and panel moderator	<b>2014</b>
Simple Living Institute - Web Master	<b>2013</b>
UCF Arboretum - Gardening, design, and management of volunteers	<b>2011-2012</b>
Econ Farm – Intern for permaculture design and on-site management	<b>2011-2012</b>
Galileo School for Gifted Learning –	<b>2011</b>
Garden facilitation assistant to Anne Schultz of K-5 children	
Winter Park Urban Farm –	<b>2011</b>
Volunteer and facilitator assistant to Tia Silvasy in the garden	

### **STEM Outreach**

CSU-Long Beach - Computing to Change the World for the Better: A Research-focused Workshop for Women – Project Co-coordinator	<b>2018-2019</b>
Science Night, Central Florida Coalition for the Homeless – Facilitator of one or more groups of children between ages 3 and 10 in successfully completing that night’s science activity	<b>2010-2012</b>
Women in EECS, University of Central Florida – President, Public Relations, Member	<b>2008-2013</b>
Robots R.O.C.K., A Central Florida EECS Outreach Program – Co-Founder and event organizer	<b>2011-2012</b>
Achieve a College Education, University of Central Florida – Facilitator of 30 students in completing activities that exercised programming and algorithm concepts	<b>2011</b>
Seminole County Science, Math, and Technology Fair – Judge	<b>2010-2012</b>
Mystery Design Workshop, University of Central Florida –	<b>2010</b>

Facilitator of two groups of 40 students in completing building activities that address engineering principles

College Shadow Day, University of Central Florida –

**2009-2010**

Facilitator of groups of 30 students in completing building activities that address engineering principles

Medicine and Technology Internship, Harlem Children’s Society –

**2008**

Research mentor of three Harlem high school students visiting for three weeks

Updated February 20, 2019