

MAX **COLLINS**

Curriculum Vitae

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OBJECTIVE

Obtain a role designing software and user experiences in order to utilize HCI skills and technical background in tandem.



EDUCATION

Ph.D. | University of California Irvine

2017 - CURRENT

Informatics Ph.D. student, Donald Bren School of Information and Computer Sciences. EDGE Fellowship recipient. Advisor: Kurt Squire.

Bachelors | University of Illinois at Urbana-Champaign

2013 - 2017

B.S. Psychology, Informatics; Graduation year: 2017. Presidential Award Scholar. AAP Scholar.



EXPERIENCE

NSF DREU Intern | Carnegie Mellon University, HCII, Articulab **SUMMER 2017**

- Took part in the development of an embodied conversational agent (ECA), in this study an intelligent virtual child, to engage in a collaborative tabletop game called Outbreak, and elicit curiosity during the game play
- This project (SCIPR: Sensing Curiosity in Play and Responding) aims to foster curiosity in children to improve learning and self-drive
- Used human-human and human-machine interaction observation, transcription, coded verbal/nonverbal behaviors, created finite state machine for Al agent, iterative design, frequent play testing
- Part of the Articulab at CMU under Dr. Justine Cassell
- Funded through NSF

NSF REU Intern | NYU Center for Behavioral Statistics and the Study of Motivated Perception **SUMMER 2016**

- Training in experimental research design and behavioral statistics with professors and doctoral students
- Eye tracking, psychophysiology, dyadic interactions, video analysis, observation, survey, interview
- Contributed to interdisciplinary and transformative research across multiple domains including emotion, health, relationships, jury decisions, politics, and others while maintaining a single intellectual focus on the study of motivated perception
- Produced novel research, an APA-style manuscript, and presented work.
- Took part in study design, surveying participants, data analysis (SPSS), and running participants in studies
- Funded through NSF

NSF REU Intern | Blue Waters Student Internship Program

SUMMER 2015

- Practice high performance computing and parallel computing at the supercomputer level
- Work with Dr. Alan B. Craig on creating augmented reality (AR) visualizations of scientific data
- Work with professors, scientists, and researchers to understand the needs in the field in order to create the most useful application in our power
- Developed an AR application, VisMe, and a pipeline for visualizing large amounts of molecular data using Unity 3D and various programming/scripting languages (experience querying databases too)
- Wrote and published paper on work/findings
- Funded through NSF

CITL Intern | University of Illinois at Urbana-Champaign

2016 - 2017

- Worked for the VetMed school at University of Illinois at Urbana-Champaign to create software to visualize bone structure data of animals for use in classes
- Developed application in order to aid vet students and professors in the classroom so that they would not need to use pdf printouts
- Used Unity 3D, JavaScript, c#, and 3D models created in Maya

Research Assistant – Connected Learning Lab | University of California Irvine

2017 - CURRENT

- Participating in designing studies and conducting research using qualitative and quantitative methods
- Advisor: Kurt Squire

Research Assistant/Software Developer – CoLearn Lab | University of Illinois at Urbana-Champaign

2016 - 2017

- Write/revise software for CoLearn lab in order to create an application, Food for Thought, used for research and commercial distribution
- <u>Food for Thought</u> creates a visual representation of foods we consume on a virtual that users can manipulate and see the ecological imprint of their choices
- Used html, JavaScript, node, and other software to deploy to Windows Surfaces and Mac OSX machines

Research Assistant – Vision Lab | University of Illinois at Urbana-Champaign

2015 - 2017

- Perform research experiments testing human attention in a cognition lab in the Psychology department
- Use eye trackers, methods such as survey and interview
- Extensive experience on various qualitative and quantitative methodologies

Unity Developer - Transformative Play Lab | University of California Irvine

2018 — CURRENT

• Working as a Unity developer to develop an interactive augmented reality experience for scenic designers and other theater production team members.

Resident Advisor | University of Illinois at Urbana-Champaign

2014 - 2017

- Oversee residents in the university residential halls, maintain safety on campus
- Plan programs for residents
- Create bulletin boards, new ways of engaging residents
- Support students in working through any personal, academic, or other struggles

IEFX Summer Scholar | University of Illinois at Urbana-Champaign SUMMER 2013

- Awarded IEFX Summer Scholars Scholarship (full funding for Summer)
- Worked with a team in a "startup" fashion, rapidly prototyping and pitching a product we created
- Took Calculus and Engineering courses a full semester prior to anticipated college start date, learned about engineering at Illinois
- Networked with representatives from large companies who work with different types of engineers

Tutor | Niles West Literacy Center

2010-2013

• Tutor for math, science, history, and English for high school students at one of the largest tutoring centers

IS Intern | Niles West High School

2011 - 2012

- Perform software installations and upgrades across the entire school network.
- Complete routine maintenance tasks/troubleshooting
- Complete/manage work orders throughout school network

Senior Tech Leader, Anywhere Anytime Learning Help Desk | Niles West High School 2009 – 2013

- Perform diagnostics and machine repairs (software and hardware) on a 1,200-device netbook inventory
- Image computers, execute Dell work orders, maintain working relationship with Dell warranty depot
- Supervise student tech leaders, train students in using web 2.0 applications for classes



SKILLS

- Technical: C#, Python, HTML/CSS, SQL, Java, UNIX, Unity 3D, VR, AR, HCI, NLP, Microsoft Office, Google Apps, Mac OSX, Windows, Linux, Unix, HPC, Parallel Computing, iOS, Android, Xcode
- Team work, project leadership

- Self-learning
- Interpersonal communication
- Project management
- Languages: English, Spanish
- HCI, UX, UI design, prototyping

PUBLICATIONS

Collins, M. & Craig, A. (2016). VisMo: Augmented Reality Visualization of Scientific Data and Molecular Structures. *JOCSE: Journal of Computational Science Education*, 8(1), 12-15. DOI: 10.22369/issn.2153-4136/8/1/3.



HONORS/AWARDS

- Ingenuity UCI Student Technology Showcase, Henry Samueli School of Engineering and Donald Bren School of Information and Computer Sciences. \$6500 award —2018
- Edge Fellowship, full tuition and stipends 2017 2022
- UCI Chair's Award, \$2500 award 2017
- Presidential Award Scholarship, \$10,000/year 2013 2017
- College of LAS Certificate of Excellence for outstanding academic performance –2017
- OMSA Academic Excellence Certificate 2016, 2017
- LAS AAP Scholar 2015 2017
- NSF REU Travel Grant 2016
- LAS Certificate of Highest Distinction for Outstanding Academic Achievement 2016
- ASPIRE member 2016
- NYU Diversity Summer Student Research Conference Certificate 2016

- IEFX Scholarship, full Summer tuition to begin college semester early 2013
- Preliminary SAT/National Merit Scholarship Qualifying Test Finalist 2012
- Global Leadership and Philanthropy NIU Scholarship Award Recipient 2012
- National Honors Society Member 2012 2013
- Renaissance Tutor Award, Literacy Center Niles West High School 2012-2013
- Sociedad Honoraria Hispánica—2011

PRESENTATIONS

- CMU Articulab Final Presentation Summed up my summer research to the lab—Summer, 2017
- Blue Waters Institute 2017 Spoke about work on AR visualization Summer, 2017
- NYU Diversity Summer Student Research Conference Presented on research on police/public relationships
 Summer, 2016
- ACCA Spoke to colleges in Chicago regarding my visualization work Fall, 2015
- National Conference on Peer Tutoring in Writing Fall, 2012

- REFERENCES

- Dr. Alan Craig, Research Scientist at the NCSA, University of Illinois at Urbana-Champaign, a-craig@ilinois.edu.
- Dr. Simona Buetti, Professor/Researcher, University of Illinois at Urbana-Champaign, sbuetti@gmail.com.
- **Dr. Alejandro Lleras**, Professor/Researcher, University of Illinois at Urbana-Champaign, alejandrolleras@gmail.com.