

Andrew Blanton eNTERFACE

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eNTERFACE 2017

Andrew Blanton

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Workshop: Networked Creative Coding Environments

Abstract: As a part of ongoing research Andrew Blanton will present a workshop using Amazon Web Servers for the creation of networked art. The workshop will demonstrate sending data from Max/MSP to a Unix based Amazon Web Server and receiving data into a p5.js via websockets. The workshop will explore the critical discourse surrounding data as a borderless medium and the ideas and potentials of using a medium that can have global reach.

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Project Objectives: The objectives of this project are to build a networked interactive installation that is global in scope. Using open source software, andrew will lead a small team of 4-5 artist and coders working with networked infrastructure as a medium for art creation. By using networked technology as a medium, and harnessing the power and ubiquity of smart phones, this project will create a flexible mesh of participants that can join in to this work creating a globally available interactive artwork. By building a node.js server that can accept a new user and give that user a unique identification, the individual clients that are connected to the server will be able to send data that can drive web-based software audio synthesizers on connected devices.

Background Information: As a continuation of ongoing research into networked interactivity, this proposed work will build on research started with Andrew's 2016 work *Waveguide*. Waveguide is a complete system that can send data from the performance stage to smartphones in real time. This data then drives web-based software synthesizers in each participants cell phone in the form of a web site. The task now is to build on this existing system to create a server that can uniquely identify each participant for expanded interaction capabilities. The work will build a new web-socket based p5.js page that allows for audio visual synthesis and interaction in real time.

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Detailed Technical Description: The work will use Amazon Web Servers, node.js, and p5.js. Participants should have some experience working with javascript and the project will primevally use javascript as the main language. Max/MSP will also be used for prototyping purposes and some familiarity with Max would be helpful as well.

Resources Needed: The project is dependent on free and open source software and will not need any physical resources other then participants with computers to work on and a strong knowledge of node.js and javascript.

Project Management: The project will be managed in an agile manner building in four one-week sprints addressing three primary tasks. The first will be the overall design and system wide communication protocol, the second will be the construction and implementation of the initial system including an initial working prototype and finishing with a finalized working model, and the third and final stage will be in the finalization of the working model and testing and interface polishing.

Work Plan and Implementation Schedule: The project will be completed over the span of four weeks broken-down into the following approximate schedule in four one-week sprints:

Week One: Initial node.js prototyping and server communication

Week Two: Building and finalization of server and communication protocol

Week Three: Building of websocket hooks and audio-visual client

Week Four: Finalization of interface and Testing

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Profile:

Andrew Blanton (PI) Bio: Andrew Blanton is a media artist and percussionist. He received his BM in Music Performance from The University of Denver (2008) and a Masters of Fine Arts in New Media Art at the University of North Texas (2013). He is currently an Assistant Professor of Digital Media Art at San Jose State University in San Jose California leading the CADRE Media Lab and a Research Fellow in the UT Dallas ArtSciLab in Dallas Texas. He was recently awarded the 2016 Soundwave Biennial Buzz Award for emergent artist, conducted an interview with software company Cycling74 for his use of Max/MSP, and did a residency at the historically innovative Studio for Electro Instrumental Music (STEIM) in Amsterdam, he has also performed and given talks across the world in places including the Netherlands, Brazil, and Hong Kong among others. <http://andrewblanton.com>

See attached Document for Andrew's Resume

Staff needed will consist of 4-5 creative coders familiar with JavaScript and Max/MSP