

COOPER BRISLAIN

Synesthetic Visioneer • Creative Coder

3D and software Engineer specializing in synthesizing value production techniques with real-time environment parameterization, seeking opportunities to enhance event immersion and experience.

KEY SKILLS

Excellent written communication skills
Lifelong learner
Critical thinker
Ability to conceptualize complex systems
Adaptability and creative problem-solving skills
Able to foresee potential future complications and constraints, designing for extensibility and scalability

EXPERIENCE

Lighting R&D Engineer, Simple Machinists 2018

Collaboratively designed custom-fabricated parts for high-performance AR/VR LED fixtures for intelligent stage lighting.
Delivered 1701 LED fixtures in time for use for installation at live events.
Developed production, QC, and issue-tracking software using GitHub, Jira, Sub, and mySQL.
Developed testing tools for use in production and for final diagnostics using Arduino.
Iteratively refined product designs based on event post-mortem analysis.
Recommended parts, materials, and tools to overcome engineering and usability challenges.
Designed custom 3D-printed parts to improve durability and streamline assembly.
Developed and tested custom production methodologies to meet requirements.
Analyzed field data for causes of failure and revised designs to reduce or eliminate rate of failure.
Drove open live event experience to make recommendations regarding industry-standard solutions, practices, and common challenges.

Motion Graphics Software Engineer & Visual Artist, Vektor Selektor 2011-present

Created audio-interactive, real-time visual content for live music events using Unity, Quartz Composer, GLSL, Shader and Processing.
Designed custom-interactive stage-time solutions for controlling live visuals using control surfaces and gesture devices, including Wii Remotes, Xbox Kinect, L.E.A.P Motion, and various MIDI controllers.
Design projections and LED mapping for stages.
Solve complex technical challenges for live events, using limited available resources.
Performed original content live before audiences of up to 10,000.

Software Engineer, BetterHelp 2015-2016

Worked on an agile team to release iterative improvements to user experience based on data acquired from multivariate analytics.
Utilized XSLing (an XPath to XQuery translator) and custom XSLing XSLT templates by XSL, using coding, spreadsheeting, and optimized database queries.
Developed automated qualification and approval for financial and applicants, issuing significant customer support resources.
Integrated billing system with Payment Processor, A/R, conducting payment flow and driving to acceptance of new payment methods.

Software Engineer, Visions in Education 2015-2016

Maintained an online information portal.
Standardized course catalog and event listings.
Audited Webpages extensions and determined optimization strategies to minimize overhead and protect of failure.
Brought outdated code repository up-to-date.
Audited inventory and collection data to determine points at which undesirable behavior was introduced.
Developed strategies and solutions to avoid future complications.

Lead Software Engineer, Taylor Online Marketing 2010-2017

Designed mySQL database for multi-department leads.
Built RESTful API for partners and affiliates.
Created embeddable form widgets for use by affiliates and partners.
Re-engineered system for greater extensibility, which increased lead volume and offer additional cross-selling opportunities.
Designed tools for the reporting and visualization of lead data.
Automated regular or time-consuming tasks to improve efficiency and agility.

Software Engineer, Design Reactor 2008

Developed interactive Flash landing page for Disney Parks 2008 campaign.
Produced print-perfect web materials for marketing campaigns, adhering to strict style guidelines.
Created rich, interactive user interface for agency portfolio, with dynamically populated content.

Software Engineer, Jupiter Hosting 2007

Developed custom modules and features for in-house content management system. (Based on Joomla and Drupal)
Optimized MySQL queries for highly-trafficked website.

Support Technician, UCSC Media Services 2006-2007

Provided technical support to faculty and students using university media equipment including projectors, video cameras, media systems, and computers.
Maintained readiness of pool of media equipment for rental and checkout, ensuring good working order, cleanliness, and presence of all included components.
Operated service vans on campus while observing high safety standards and awareness in accordance with an active campus with high pedestrian traffic.
Set up and struck A/V and other media equipment for on-campus events.

Event Crew, Plan-It Interactive 2000

Set up and struck large interactive play systems for special events.
Regularly loaded and unloaded heavy equipment.
Operated lock-changing work, ensuring the correct use of safety equipment and procedures by participants.
Performed on-site troubleshooting and repair of P.C. cars.
Drove bus loaded with trailers on highway to and from events.

EDUCATION

UC Santa Cruz - Film & Digital Media • 2007
Napa Valley College, Napa, CA - Computer Science • 2002

COURSEWORK

Abstract Data Structures
Algorithms
XML Assembly
Differential Equations
Discrete Math
Linear Algebra
Logic
Digital Media Production
Film Media Production
Documentary Production
Film Theory
Digital Media Theory
Social Documentation
Java Programming
C Programming
AP Computer Science
C++ Networking

TECHNICAL SKILLS

Full-Stack Development
C#
Linux
Python-Based Programming
C#
LAMP
Java
Agile
PHP
MySQL
HTML5
SCSS
Rails
Node.js
jQuery
jQuery
Front-End Development
Flash
Real-Time Graphics for Live Events
GLSL, Shader
Quartz Composer
Projection Mapping
Video Editing
Agile Development
Tools
Creative Coding
Arduino
Object-Oriented Programming
MVC
Content Management Systems
jQuery
WordPress
Webmaster's Cloud
Photography
Video Production
Generative Art
Imagines and Automation
Spline Reticulation

ASSOCIATIONS

Visual Artist, OpenArt (Chili) • 2017
Visual Artist, Wikimedia (Oakland) • 2015, Present
Visual Artist, Camp Queerious (Oak) • 2009-11
Technology Director, ACTV, UCSC • 2002
Student Trustee, Napa Valley College • 2002

INTERESTS

Real-time audio-interactive music visualizations
IoT Projects
Generative Art

CORE VALUES

The end user's privacy and security is paramount.
Misinformation demands a comprehensive utility.
The best thing to say when you don't know is that you don't know.

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