COOPER BRISLAIN

Oakland, CA
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Synesthetic Visioneer • Creative Coder

VJ and Software Engineer specializing in synesthesizing video 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
Adaptable 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 ARTNet LED fixtures for intelligent stage lighting.
Delivered 150 LED fixtures in time for use for installations at live events.
Developed production, q/a, and asset tracking software using QR codes, Pub/Sub, and mySQL.
Developed testing tools for use in production and for field-diagnostics using Arduino
Iterated on product design 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 normalize assembly.
Developed and iterated mass-production methodologies to meet requirement.
Analyzed failed units for causes of failure and revised design to reduce or eliminate rate of failure.
Drew upon 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-reactive, realtime visual content for live music events using Unity, Quartz Composer, GLSL Shaders and Processing.
Design human-computer interaction schemes for controlling live visuals using control surfaces and gesture devices, including Wii Remote, XBox Kinect, LEAP Motion, and various MIDI controllers.
Design projection and LED mapping for stages.
Solve complex technical challenges on location, 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 experiene based on data acquired from multivariate analytics.
Utilized XDebug for PHP to identify bottlenecks and reduce landing page load time by 40%, using caching, asynchronous loading, and optimized database queries.
Developed automated qualification and approval for financial aid applicants, freeing significant customer support resources.
Integrated billing system with Paypal's Braintree API, standardizing payment flow and allowing acceptance of new payment methods.

Software Engineer, Visions in Education 2015-2016

Modernized student information portal.
Standardized course catalog and event listings.
Audited Wordpress extensions and determined optimization strategies to minimize overhead and points of failure.
Brought outdated code repository up-to-date.
Audited repository and codebase diffs 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 auto-shipping leads.
Built RESTful API for partners and affiliates.
Created embeddable form widget for use by affiliates and partners.
Redesigned system for greater extensibility, to both increase 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 pixel-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 websites.

Support Technician, UCSC Media Services 2006-2007

Provided technical support to faculty and students using university media equipment including projectors, video cameras, audio 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 rock-climbing wall, ensuring the correct use of safety equipment and procedures by participants.
Performed on-site troubleshooting and repair of R/C cars.
Drove box trucks with trailers on highway to and from events.

TECHNICAL SKILLS

Full-Stack Development
Git
Unity
Flow-Based Programming
C#
LAMP
Linux
Apache
PHP
My/SQL
HTML5
SCSS
RegEx
Node.js
Javascript
JQuery
Front-End Development
Flash
Real-Time Graphics for Live Events
GLSL Shaders
Quartz Composer
Projection Mapping
Video Editing
Agile Development
Trello
Creative Coding
Arduino
Object Oriented Programming
MVC
Content Management Systems
Joomla
Wordpress
Adobe Creative Cloud
Photography
Video Production
Generative Art
Integration and Automation
Spline Reticulation

EDUCATION

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

COURSEWORK

Abstract Data Structures
Algorithms
X86 Assembly
Differential Equations
Discrete Math
Linear Algebra
Logic
Digital Media Production
Film Studio Production
Documentary Production
Film Theory
Digital Media Theory
Social Documentation
Java Programming
C Programming
AP Computer Science
Cisco Networking

ASSOCIATIONS

Visual Artist, Opulent Chill • 2017
Visual Artist, Wormhole; Oakland • 2015–Present
Visual Artist, Camp Question Mark • 2009–10
Technology Director, SCTV; UCSC • 2005
Student Trustee, Napa Valley College • 2002

INTERESTS

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

CORE VALUES

The end user's privacy and security is paramount.
Monetization shouldn't compromise utility.
The best thing to say when you don't know is that you don't know.