

COOPER BRISLAIN

Synthetic Visioner • Creative Coder

V2 and software Engineer specializing in synthesizing 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
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 AR700r LED fixtures for intelligent stage lighting.
Delivered 1701 LED fixtures in time for use for installation at live events.
Developed production, v2, and issue-tracking software using GitHub, Docker, Sub, and mySQL.
Developed testing tools for use in production and for final diagnostics using Arduino.
Iterated on 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.
Design hardware-empowered music visualizers for controlling live visuals using control surfaces and gesture devices, including Wii Remotes, Xbox Kinect, Leap Motion, and various MIDI controllers.
Design projections and LED mapping for stages.
Solve complex technical challenges in motion, 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 XSLT for PHP to identify bottlenecks and reduce loading page wait times by 80%, using caching, asynchronous loading, and optimized database queries.
Developed automated qualification and approval for financial aid applicants, housing significant customer support resources.
Integrated billing system with Payment Processor, ACH, conducting payment flow and driving acceptance of new payment methods.

Software Engineer, Visions in Education 2015-2016

Mathematical student information portal.
Standardized course catalog and event listings.
Analyzed Webpage execution and determined optimization strategies to minimize overhead and points of failure.
Brought method code repository up-to-date.
Audited repository and codebase able to discern 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 widgets for use by affiliates and partners.
Reengineered 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 art-director perfect web materials for marketing campaign, 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 live video cam 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-chambering wall, ensuring the correct use of safety equipment and procedures by participants.
Performed on-site troubleshooting and repair of B+C cam.
Drove bus loaded with trailers on highway to and from events.

TECHNICAL SKILLS

Full-Stack Development
C#
Unity
Python-Based Programming
C#
LAMP
Linux
APIs
PHP
MySQL
HTML5
SCSS
Rails
Node.js
jQuery
JavaScript
Python-Based Development
Flash
Real-Time Graphics for Live Events
GLSL, Shaders
Quartz Composer
Projection Mapping
Video Editing
Agile Development
TeX/La
Creative Coding
Arduino
Object Oriented Programming
MVIC
Content Management Systems
Bombl
Websockets
Adobe Creative Cloud
Photography
Video Production
Generative Art
Imagegen and Animation
Spline Retraction

EDUCATION

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

COURSEWORK

Abstract Data Structures
Algorithms
XML Assembly
Discrete Mathematics
Discrete Math
Linear Algebra
Logic
Digital Media Production
Film Studio Production
Documentary Production
Film Theory
Digital Media Theory
Social Documentation
Java Programming
C Programming
API Computer Networks
Cisco Networking

ASSOCIATIONS

Visual Artist, OpenArt Club • 2017
Visual Artist, Worthwhile (Unleash) 2015 - Present
Visual Artist, Casey Quisenberry Mark • 2009 - ?
Technology Director, UC TV • UCSC • 2002
Student Treasurer, 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 shouldn't compromise safety.
The best thing is say when you don't know is that you don't know.

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