

COOPER BRISLAIN

Synesthetic Visioneer • Creative Coder

1D 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  
1.8kghr 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 AR/VR LED fixtures for intelligent stage lighting.  
Delivered 101 LED fixtures in time for use for installation at live events.  
Developed production, 3D, and assembly software using C++ code, Java-Swift, 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, Shaders and Processing.  
Designed custom-interactive stage visual content for live music events using control surfaces and gesture devices, including Wii Remotes, Xbox Kinect, L.E.A.P. Motion, and various MIDI controllers.  
Designed projection and LED mapping for stages.  
Safely complex technical challenges for live events, including testing and troubleshooting.  
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 load times by 80%, using caching, asynchronous loading, and optimized database queries.  
Developed automated qualification and approval for financial aid applicants, having significant customer support resources.  
Integrated billing system with Payment Gateway, API, conducting frequent live and effective acceptance of new payment methods.

Software Engineer, Visions in Education 2015-2016

Maintained student information portal.  
Standardized course catalog and event listings.  
Audited Webpage extensions and determined optimization strategies to minimize overhead and points of failure.  
Brought outdated code repository up-to-date.  
Audited repository and codebase able to discuss 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.  
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 art-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 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 tool, 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	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	
TECHNICAL SKILLS					
Full-Stack Development	Git	Unity	Flow-Based Programming	C#	LAMP
Linux	Apache	PHP	MySQL	HTML5	SCSS
RegEx	Node.js	Javascript	XQuery	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				

ASSOCIATIONS

Visual Artist, OpenArt (Fall) • 2017  
Visual Artist, Wonders (October) • 2015 - Present  
Visual Artist, Camp OpenArt (Fall) • 2009 - 11  
Technology Director, ACTV, UCSC • 2005  
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 shouldn't compromise ability.  
The best thing to say when you don't know is that you don't know.

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