COOPER BRISLAIN

Software Engineer · Creative Coder

● Oakland, CA
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Interdisciplinary Software Engineer and Visual Artist seeking role on a team developing innovative software around Augmented Reality, Virtual Reality, IoT, and other emerging fields.

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.
›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 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 and revised design to reduce or eliminate rate of failure.
›Made design recommendations based on common challenges encountered in live event production.

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

›Created audio-reactive, realtime visual content for live 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 LED and projection 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, increasing lead volume and providing additional cross-selling opportunities.
›Designed tools for the reporting and visualization of lead data.
›Improved efficiency and agility by automating frequent or time-consuming tasks.

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)
›Optimized MySQL queries for highly-trafficked websites.

Support Technician, UCSC Media Services 2006-2007

›Set up and struck media equipment for special events and academic productions.
›Provided technical support to students and faculty in the use of media equipment including projectors, video cameras, audio systems, and computers
›Maintained readiness of equipment pool 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.
›Held keys and access codes to secure areas, media cabinets, and equipment closets throughout the university campus.

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   MySQL

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   Arduino   MVC   Content Management Systems   Joomla   Wordpress

Adobe Creative Cloud   Photography   Generative Art   Integration and Automation   Spiline 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–)?(
Technology Director, SCTV; UCSC • 2005
Student Trustee, Napa Valley College • 2002

INTERESTS

Generative Art
Flow-Based Programming
IoT

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.