

# COOPER BRISLAIN

## Software Engineer • Creative Coder

707-980-2340

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

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## TECHNICAL SKILLS

Full-Stack Development   Git   Unity   Flow-Based Programming   C#   LAMP   Linux  
PHP   MySQL   HTML5   SCSS   Node.js   Javascript   JQuery   Front-End Development  
Flash   Real-Time Graphics   GLSL   Shaders   Projection Mapping   Video Editing  
Agile Development   Content Management Systems   Adobe Creative Cloud   Event Production  
Generative Art   Integration and Automation   Experience Design   Rapid Prototyping  
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## EXPERIENCE

### Lighting R&D Engineer, Simple Machinists 2018

- › Collaboratively designed custom-fabricated parts for high-performance ARTNet LED fixtures for use at live events.
- › Developed production, q/a, and asset tracking software using QR codes, Pub/Sub, and MySQL
- › Iterated on product design based on event post-mortem analysis.
- › Researched and recommended parts, materials, and tools to meet production requirements.
- › Designed custom 3D-printed parts to improve durability and normalize assembly.
- › Analyzed failed units for causes and revised design to reduce or eliminate rate of failure.
- › Proposed design recommendations based on common challenges encountered in 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 development team to release iterative improvements to user experience based on data acquired from multivariate analytics.
- › Utilized XDebug with PHP and NginX to identify bottlenecks and reduce landing page load time by 40%.
- › 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.
- › Created super cool Slackbot integrations and emojis to improve team communication and morale.

### **Software Engineer, Visions in Education 2015-2016**

- › Modernized student information portal.
- › Standardized course catalog and event listings in content management system.
- › Audited Wordpress extensions and determined optimization strategies to minimize overhead and points of failure.
- › Audited git 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 critical style guidelines.
- › Created rich, interactive user interface for agency portfolio, using Actionscript and Expression Engine.

### **Software Engineer, Jupiter Hosting 2007**

- › Developed custom modules and features for Joomla-based content management system.
- › Optimized MySQL queries for highly trafficked websites.

## **EDUCATION**

BA Film & Digital Media UC Santa Cruz 2003-2007

## **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**

Technology Director, SCTV; UCSC • 2005-2006  
Student Trustee, Napa Valley College • 2001-2002

## **INTERESTS**

Flow-Based Programming  
Intelligent Lighting, LED & Projection Mapping  
Synesthetic Experiences