

Synesthetic Visioneer • Creative Coder

VJ 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
- 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/NT LED fixtures for intelligent stage lighting. Delivered 150 LED fixtures in time for use for installations at live events.
- Developed production, QA, and asset tracking systems using QR codes, Pub/Sub, and mySQL.
- Developed testing tools for use in production and for field-testing 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 requirements.
- Analysed failed units for causes of failure and revised designs to reduce or eliminate rate of failure.
- Drove upon live event experience to make recommendations regarding industry-standard solutions, practices, and components.

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

Created audio-reactive, real-time 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 Wi 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 experience 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.

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. *Room on Artwork, A-01 and Artwork on display, including a film, camera, camera.*

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
- Cloud 
- Utility
- Flow-Based Programming
- C
- LAMP
- Linux
- Apache
- PHP
- MySQL
- HTML5
- SCSS
- Node.js
- JavaScript
- jQuery
- Front-End Development
- Flash
- Real-Time Graphics for Live Events
- GLSL, Shader
- Composition
- Projection Mapping
- Video Editing
- Agile Development
- Trello
- Creative Coding
- Audience
- Object Oriented Programming
- MVC
- Content Management Systems
- Joomla
- WordPress
- Adobe Creative Cloud
- Photography 
- Video Production
- Generative Art
- Integration and Automation
- Stippling Reti-fication

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
Films Theory
Digital Media Theory
Social Documentation
Java Programming
C Programming
AP Computer Science
Cisco Networking

ASSOCIATIONS

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

INTERESTS

Real-time audio-reactive music visualizations
IoT Projects

CORE VALUES

The end user's privacy and security is paramount. Monetization shouldn't compromise utility.

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