

# Chris Lombardi

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*Independent Artisan, Professional Chemist, and  
Seasoned Programmer*

## Education

**California State Polytechnic University, Humboldt** Arcata, CA, B.S. Chemistry, 2022  
ACS Inorganic Chemistry Student of the Year

**Massachusetts Institute of Technology** Cambridge, MA, B.S. Art and Design, 1987  
Minor in Holography and Islamic Calligraphy

## Tools, Technology And Skills

### Software Development

**Languages** JavaScript, python, PHP, Java, C++, Lisp, PostScript, VB, VBA, Perl, Omnimark, ColdFusion, *and others*

**Architectures** MVC, event driven, networked device control, voice trees

**Tools and Concepts** JSON, OpenAI, Regex, Markdown, Git, Server Maintenance, Docker, LAMP, Bugzilla, Trac, Lucene, UML

**IDE** JetBrains: PhpStorm, PyCharm, IntelliJ IDEA; Emacs; Visual Studio

**OS** Mac OS X, Linux, Windows, Raspberry Pi, Arduino

### Chemistry

**Lab Equipment** GC-FID, FTIR, UV-Vis, NMR, Schlenk line, HPLC, fluorometer, diode spectrometer

**Analysis Software** Mathematica, IGOR, LabView, Excel

**Research interests** Thin-film Polymer Structural Color, Microbial Polymer Degradation

### Web

**Frameworks and Platforms** React, Laravel, AWS, Wiki, Vercel, GWT, Spring, Custom LAMP

**Languages** JavaScript, TypeScript, SVG, PHP, Java, Lisp, HTML, CSS, XML, ColdFusion

**Tools and Libraries** jQuery, D3, AWS CLI, Bootstrap, Ajax, pug

**Wordpress** Plugins and themes, WooCommerce, bbPress, Aweber, payment integrations

### Productivity

**Adobe Creative Suite** Illustrator, Photoshop, Premiere, Lightroom. Also PostScript.

**Microsoft** VBA Automation, Web, and Database integration

### Databases

**Database** MySQL, PostgreSQL, Oracle, MS SQL, MS Access, ODBC, Filemaker Pro, Alpha5

**Reporting** Excel, Crystal Reports, Access Report Manager, Alpha5

**Tools** mysql CLI, phpMyAdmin, MySQL Workbench

### Other

**Weaving** Loom weavings, fiber dyeing, pattern and draft design

## Job Experience

Includes e-commerce, web services, event registration, embedded web servers, and data integration.

## **Volunteer**

### **H.O.P.E. Hackers On Planet Earth** *Queens, NY 2023 - Present*

Co-organized annual conference event, contributing to event planning, logistics, and visual message.

## **Freelance**

### **Internet Archive** *San Francisco, CA 2023 - Present*

Creator of Reference Explorer (IARE), a tool to empower Wikipedia editors to inspect and change citations to be more relevant and reliable through the use of the Wayback Machine, a service of the Internet Archive. Created with React.js, JavaScript, python, and a suite of development utilities.

### **Diedrich Roasters, Incorporated** *Sandpoint, ID 2017 - 2019 Manufacturer of coffee roasting machines*

Developed iPad based job and client tracking system for logging of factory employee hours. Used Laravel, Bootstrap, JavaScript, and Composer to create back- and front-end interfaces. including Excel integration and management tools for administrating, monitoring and allocating employee resources.

### **Weaver** *Arcata, CA 2016 - Present*

Fabricate scarves and yardage of protein and cellulose fibers using jack and counter-marche looms. Setup design drafts and treadling patterns utilizing open-source draft software. Dye calculations for hand-dyed fibers utilizing Excel and Photoshop. Participant in Golden State Linen farm-to-fashion regeneration project and Humboldt Fiber Guild.

### **SewImages** *Oakland, CA sewimages.com 2010 - 2020 Local sewing shop offering sewing classes*

Upgraded website for sewing classes and products with Wordpress and WooCommerce. Built custom plugins and themes, post types and JavaScript animations. Built previous CMS with PHP featuring custom checkout experiences gathering specialized information and Excel upload and download.

### **TV-B-Gone** *cornfieldelectronics.com 2004 - Present*

Created website with e-commerce, order fulfillment, algorithmic coupons, security fraud alerts, and associated admin reporting tools. Typical LAMP stack: Linux, PHP, JavaScript, Apache and MySQL, with PayPal IPN and Authorize.net integration. Continue to maintain site and admin tools.

## **Employment**

### **Butte College** *Oroville, CA 2016 – 2018*

Supplemental Instructor for Chemistry; Chemistry Lab Grader; Computer Lab Tutor; Weaving Instructor Assistant

### **Emergent Network Defense** *Washington, DC 2014 – 2015*

Visualized network security using d3 and JavaScript. Translated event data from multiple computers into a real-time visual dashboard for incident assessment. Coordinated with a team of network security engineers and data scientists.

### **Technicon** *Oakland, CA 2011 – 2012 Boutique computer solutions provider serving B2B clients*

Senior programmer, coding with GWT, Java, Spring, Freemarker, Lucene, PostgreSQL and object model design. Projects include REST delivery of engineering parts, complex manufacturing configurators, speed and accuracy upgrades of web services, and ColdFusion legacy maintenance.

### **Reach Systems, Inc** *Oakland, CA 2007 – 2009 Pioneer of internet controlled building security devices*

Senior web applications developer for monitoring and control of building activity and user credentials. Integrated communications between proprietary hardware and agents in the security arena. Projects

include embedded web servers in security appliances and voice tree systems.

**Microsoft Financials Division (Volt) Redmond, WA 2004**

Developed Integrated workflow utilizing Excel templates to generate OLAP reporting tools for regional national managers. Engineered Excel with VBA and ADODB to connect to SQL Servers, and provided configuration tools for fast-changing requirements.

**Pacific Interactive Seattle, WA 1997 - 2001**

Development lead for proprietary network-based distributed media control system. Documentation Lead for ActiveX component design documents, using UML inspired by design meetings with clients and fellow programmers. Lead development of audio and visual systems to control and monitor facility-wide components. Worked closely with on-site construction teams to deliver solutions integrating Visual Basic, ActiveX, SQL Server and XML technologies.

*Installations include:*

**Experience Music Project Seattle, WA**

Led team to design, develop and install distributed media control system in high- tech interactive Rock and Roll museum, including a 72 channel SeaChange video controller and a facility-wide event scheduler. Permitted control and monitoring of the facility by integrating VB custom controls with C++ COM objects, interpreting real-time data via XML.

**Microsoft Executive Briefing Center Redmond, WA**

Developed conference room touch-screen systems to allow each room's audio, video and computer equipment to be controlled from the podium of each room. Developed configuration and monitoring programs for the Center's staff, including a software patch bay emulator. Upgraded facility configuration scheme to incorporate XML so that network structure changes are easily made.

**MGM Grand Hotel Las Vegas, NV**

Designed and developed video programming scheduler that allows staff to deliver and schedule content to giant screen video walls and hotel marquees. Front ends in VB and MS Access with a SQL Server backend.