

Chris Lombardi

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Chemist, Programmer, Weaver

(206) 786-7447

Goal

Design and program for the science, information or food realms.

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. Created embedded web servers in security appliances, and created 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.