

Clifford Anderson

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Mission-Driven Technology Leadership

Over 20 years of hands-on experience leading high-impact projects and teams in higher education, Fortune 500s, retail/e-commerce, and mission-driven organizations. Passionate about learning, mentoring, and social good. Brings expertise in agentic AI workflows and spec-driven development.

CORE COMPETENCIES

- Strategic Technology Planning • Cross-Functional Team Leadership • Mentoring & Talent Development
- Remote Collaboration • Agile Project Management • Architecture & High-Availability System Design
- Automation • Full-Stack Agentic Development • Data & Analytics • E-Learning/Fintech/CRM solutions

PROFESSIONAL EXPERIENCE

INDEPENDENT TECHNICAL CONSULTANT | Cambridge, MA | 2010 – Present

Senior Principal | Technical Lead | Solutions Architect/Engineer

- Provide tech analysis, strategy, and full-stack cloud solutions for clients including **Harvard University Graduate School of Design**, the **Massachusetts Medical Society**, **Columbia College Chicago**, and **Triverus Consulting**, with a focus on education and public service.
- Conduct training and coaching for diverse audiences, enabling successful technology adoption.
- Create agentic development workflows and integrations using spec-driven development.
- Advise on tech team policies and practices. Analyze architecture suitability for business goals.
- Host cross-disciplinary tech/education/civic/arts events (e.g. at **Cambridge Innovation Center**).

Technologies and integrations: *Ruby on Rails, Python, TypeScript, PHP, Twig, C#, Java, PostgreSQL, MySQL, React, JavaScript, HTML, CSS, SCSS, JSON, XML, AWS, Heroku, Jenkins, CircleCI, Travis, Docker, Vagrant, JIRA, Confluence, Trello, Asana, EthosCE, Wordpress, Algolia, Unity 3D, HubSpot*

DEPT® / ROCKET INSIGHTS | Boston, MA | February 2019 – October 2022

Principal Software Engineer

- Built enterprise cloud B2B, consumer-facing, and internal apps using agile/lean methodologies in cross-functional team settings while ensuring platform integrity, security, and privacy.
- Delivered mission-critical systems handling US\$ billions in transactions, significantly cutting costs.
- Eliminated payment delay at >140 retail sites via on-demand system to issue prepaid VISA cards.
- Modernized/optimized legacy codebases & DBs. Managed complex releases with zero downtime.
- Developed protobuf schemas for migration to event-driven architecture for a Stripe integration.
- Secured 5x repeat contract engagements through high-quality project execution and innovation, contributing to the agency's recognition as 2022 **Webby "Network of the Year"**.

- Mentored dozens of engineers on software design, maintenance, and performance optimization (remote agency and client teams at **Indigo Agriculture, Drizly/Uber Eats, Procare Solutions**).
- Conducted competitive analyses for platform and vendor recommendations (client and internal).

Technologies and integrations: *Ruby on Rails, Protobuf, React, PostgreSQL, MySQL, JavaScript, HTML, CSS, JSON, SOAP, AWS, Heroku, New Relic, Datadog, Jenkins, CircleCI, Docker, Kubernetes, Snowflake, JIRA, Confluence, Oracle, Stripe, Bank of America*

BERKLEE ONLINE / BERKLEE COLLEGE OF MUSIC | Boston, MA | June 2002 – January 2015

Principal Technology Strategist	March 2014 – January 2015
Director of Online Learning Technology	June 2012 – March 2014
Assistant Director of Content Technology	April 2011 – June 2012
Software Engineering Manager	July 2006 – April 2011
Senior Software Engineer	June 2003 – July 2006
Senior Web Developer	June 2002 – June 2003

- Core contributor from pre-launch through Berklee Online's growth to become the world's premier online music school. Provided full-stack development across student/instructor experience plus >20 back-office systems. Led multi-year transitions from monolith app to service-oriented architecture.
- Architected a feature-rich course authoring and publishing system (presented at **DevLearn**), empowering an 8-person instructional design team to develop/maintain dozens of courses at once.
- Led tech strategy/build-out of Berklee's online learning platform, winning 8+ consecutive awards and generating >\$15M annually. Upheld engagement and trust & safety via user focus testing.
- Designed/led data pipeline for Colleague/Salesforce/Moodle integrations, streamlining Admissions.
- Built multi-modal features: audio recorder, video chat, and video-synced music notation playback.
- Architected/built e-commerce engine. Automated accounting, reporting & affiliate revenue sharing.
- Developed a bias-free, rule-based AI fraud detection system, reducing financial losses by ~100%.
- Deployed dozens of app/DB servers to scalable AWS cloud infrastructure, yielding >99.9% uptime.
- Negotiated multi-year vendor contracts and hardware costs, saving over \$100K in expenses.
- Acted as tech lead on distributed, cross-functional teams. Managed/mentored up to 12 engineers.
- Collaborated with C-suite on engineering governance and multi-year/cross-institution roadmaps.
- Created pipeline to deploy courses to Berklee City Music, reaching underserved communities.
- Oversaw release of an educational iOS app backed by a microservice API, attracting new students.
- Developed backup and storage infrastructure for instantaneous editing of >30 TB video content.
- Defined change management, testing, and code release processes to provide 100% auditability.
- Oversaw W3C accessibility compliance across >140 online courses, advancing student inclusivity.
- Built student academic progress monitoring tools to maximize retention in multi-year programs.

Technologies and integrations: *Ruby on Rails, PHP, C, TCL, OpenACS, Objective C, PostgreSQL, JavaScript, HTML, CSS, XML, XSLT, AWS, Heroku, New Relic, Akamai, Informatica, Puppet, Chef, Jenkins, Lighthouse, TWiki, Authorize.net, Salesforce, Marketo, Colleague, Bank of America, WebEx, Moodle, Noteflight, Widen, Axle Video*

DIGITAS / STRATEGIC INTERACTIVE GROUP | Boston, MA | September 1997 – March 2002

Senior Software Engineer	2000 – 2002
Senior Programmer Analyst	1999 – 2000
Senior Technology Analyst	1998 – 1999
Programmer Analyst	1997 – 1998

- Developed pioneering digital initiatives for major clients. Served as lead contributor on **the NBA's** website relaunch. Led front-end dev for **AT&T's** first e-commerce platform for mobile phones/plans.
- Created a first-of-its-kind automated website generator for **IBM's** Small Business Services division.
- Led full-stack development of the "**Diet Coke Rewards**" redemption website, driving customer loyalty via individual purchase data integrated from dozens of national supermarket POS systems.
- Streamlined production for **L.L.Bean's** first-generation online product catalog, slashing development time by >50%. Served as tech lead for in-store kiosks featuring 360° product views.
- Contributed to projects for **American Express, FedEx, Aetna, and Harcourt Publishing.**
- Conducted agency-wide technology learning sessions. Mentored dozens of developers.

Technologies and integrations: *Java, ATG Dynamo, Apache Tomcat, Interwoven, Lotus Notes/Domino, Perl, Oracle PL/SQL, JavaScript, HTML, CSS, XML, XSLT*

SKILLS

Technical Skills:

- System Design for High Availability and Scalability • Service-Oriented Architecture • Microservice APIs
- Application Design • Legacy System Migration and Modernization • Third-party Platform Integration
- Cloud Technologies: AWS (EC2, EFS, S3, CloudFront), Heroku, New Relic, Datadog, Informatica
- Full-Stack Development: TypeScript, Python, Ruby on Rails, PHP, Java, C#, TCL—and other languages
- Infrastructure as Code: Docker, Kubernetes, Vagrant, Puppet, Chef • CI/CD: Jenkins, CircleCI, Travis
- Data Modeling • Database Administration and Optimization—especially PostgreSQL and MySQL
- Agentic AI and Spec-Driven Development (e.g. with Claude Code) • E-Commerce, Fintech & Accounting
- E-Learning, CRM, and Content Management Systems • DevOps • Platform Integrity and Security

Business Skills:

- Strategic Tech Selection Aligned with Business Goals • Team Leadership, Mentorship, and Training
- Agile and Lean Methodologies • Project Management tools such as JIRA, Confluence, Trello & Asana
- Requirements Gathering and Documentation • Communications with Non-Technical Stakeholders
- Vendor Management, Collaboration, and Contract Negotiations • Public Speaking and Presentation
- Trust & Safety • Accessibility, Privacy, and Compliance Monitoring • Backup and Recovery Planning
- User Testing and Focus Group Facilitation • UI/UX Skills—secondary experience in Graphic Design
- Policymaking: Governance, Change Management, Testing, Auditing, Security, Deployment Procedures

EDUCATION

- Electronic University Network (Computer Science) • Berklee College of Music (Leadership)
- Sun Microsystems (Java EE) • UMass Amherst (Communications) • Hampshire College (Liberal Arts)