

Debye (Pui San) Leong

Maui, Hawaii, USA • debye.leong@proton.me • debye.io • linkedin.com/in/debyeleong

Summary

UX Systems Architect / Front-end Engineer with 20+ years of experience working across architecture, implementation, and UX. Surfaces risk early, drives consistency across systems, and uses AI to accelerate work without giving up technical or product judgment.

Professional Experience

Peraton Inc. – Kihei, HI

UX Systems Architect / Front-end Engineer

Nov 2012–Present

- Surfaced architectural, implementation, and UX risks early so teams could make informed decisions before issues hardened into delivery or compliance problems.
- Stabilized front-end patterns across projects by tightening inconsistent UI behavior, semantics, and accessibility before debt spread.
- Applied Section 508/WCAG standards as implementation discipline, catching issues that automated checks or visual review alone would miss.
- Used AI to pressure-test ideas, review edge cases, and accelerate delivery while retaining architectural ownership and judgment.
- Translated between design intent, engineering constraints, and real user behavior to keep solutions buildable, coherent, and usable beyond the demo.
- Identified over-engineered or AI-generated code paths that did not fit the problem, then simplified them into maintainable patterns teams could actually support.

Akimeka LLC – Kihei, HI

Sr. Java Developer

May 2012–Oct 2012

Designed and implemented Java/JEE-based web applications, integrating front-end and back-end components. Delivered system documentation and production support.

Pacific Disaster Center – Kihei, HI

Sr. Webmaster / Java Developer

Apr 2006–Apr 2012

Led development of responsive web apps and mobile-first sites using Responsive Web Design (RWD). Managed deployment, access controls, and analytics reporting.

Software Engineer

Jun 2004–Mar 2006

Designed and maintained JSP-based web applications and Oracle-backed systems. Handled implementation, documentation, and user support lifecycle.

Computer Science Intern (GIS / Gazetteer)

Jan 2002–May 2004

- Built custom UI tools in Visual Basic 6.0 for metadata editing in Gazetteer database.
- Supported GIS/Gazetteer workflows with ESRI tools, ArcCatalog, VBA/Visual Basic, and ArcObjects.
- Conducted metadata research and taxonomy refinement for geographic place-names system.

Impact Highlights

- Evaluated LLM-driven architectural approaches and surfaced risks to leadership, ensuring informed decision-making in AI-integrated system design.
- Refactored key legacy components to comply with ARIA roles, reducing accessibility bug reports by 70% across multiple projects.
- Established internal component auditing process for design–dev mismatch resolution; increased first-pass implementation accuracy.
- Tightened front-end implementation patterns to prevent subtle UI and accessibility regressions that often slip through visual review.
- Created interactive pattern library leveraging USWDS and WCAG guidelines; adopted across multiple inter-agency systems.
- Standardized interaction patterns across systems to reduce inconsistency and improve accessibility and usability.
- Mentored junior and mid-level devs on semantic HTML, refactoring workflows, and user-first decision-making under deadline pressure.

Education & Certifications

AWS Certified Cloud Practitioner, April 2020

M.S. Human-Computer Interaction, DePaul University, GPA 4.0, 2012–2015

B.S. Computer Science, University of Hawaii at Hilo, GPA 3.79, 2000–2004

Certificate in Database Management, University of Hawaii at Hilo, 2003–2004

B.A. Japanese Studies, University of Hawaii at Manoa, GPA 4.0, 1991–1995

Japanese Language Program, Nanzan University, Japan, 1994–1995

Skills & Tools

Development & Accessibility

Front-end: Vue, React, Svelte, Angular, RWD, PWA, SASS, USWDS

Back-end: Java, Spring, C#, .NET, Oracle, SQL Server, MongoDB, Keycloak

Accessibility: Section 508, WCAG, VoiceOver, NVDA, TalkBack, AMP, WAVE, ANDI

UI/UX & Research

Design: Adobe XD, Axure RP, Balsamiq, Photoshop, Illustrator, Tableau

Research/Analysis: Interviews, surveys, usability evaluations, card sorts, Google Analytics, R, Morae

Developer Tooling

IDEs: VS Code, WebStorm, Eclipse, Visual Studio

Version Control: GitHub, GitLab, Azure DevOps, CodeCommit, SVN

Build/Delivery: Docker, Jenkins, SonarQube, Nexus, Sentry, Apache HTTP Server, Apache Tomcat, AWS, WordPress

Career Path Snapshot

*GIS Intern → Java Developer → Full-stack Web Dev → Front-end Lead →
UX Systems Architect*

Personal Interests

- AI systems design, UX philosophy, and interaction critique
- Long walks through badly implemented accessibility specs
- Conversational AI psychology experiments (a.k.a. LLM model sparring matches), and reverse-engineering model behavior for fun and mischief