

ADALYN LOU

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Summary

Software engineering student pursuing an M.S. in Computer Science at Northeastern University (GPA 4.00/4.00, expected 12/2027), bringing a 5+ year product design background into software development. Had experience in frontend/backend as well as AI Agent development. Currently seeking a Summer 2027 Software Engineering internship.

Education

Northeastern University	01/2026 to 12/2027 (Expected)
M.S. Computer Science, GPA 4.00/4.00	San Jose, CA
Relevant Coursework: Distributed Systems, Object-Oriented Design, Cloud Computing, Algorithms	
Pratt Institute	08/2019 to 05/2021
M.S. Information Experience Design, GPA 3.94/4.00	New York, NY
University of California, San Diego	08/2015 to 05/2019
B.S. Cognitive Science, specialized in Human-Computer Interaction (HCI)	
B.A. Interdisciplinary Computing Arts, Minor in Psychology	San Diego, CA

Professional Skills

- **Programming Languages:** Java, Python, JavaScript, C++, C#, Rust, HTML/CSS, MATLAB
- **Frameworks, Cloud & DevOps:** Spring Boot, JUnit, Docker, Terraform, AWS (EC2, ECS, S3, EFS, Lambda, ALB), Tauri, Node.js, Vite, REST APIs, Supabase
- **AI Agent and Tooling:** Prompt Engineering, Harness Engineering, MCP, RAG, Claude Code, Cursor
- **UX/UI Skills:** Figma, Shopify, Sketch, Adobe XD, SEO, Miro, Notion, Google Analytics, User Research, Wireframing, Prototyping, Information Architecture, Usability Testing, Accessibility (WCAG), A/B Testing

Technical Projects

Distributed Replicated Key-Value Store

- Engineered a replicated key-value store in Java/Spring Boot supporting leader-follower and leaderless (Dynamo-style) quorum replication with configurable read/write quorum sizes; deployed a 10-node cluster on AWS EC2 via Terraform behind an Application Load Balancer
- Built a multithreaded load-testing harness (ExecutorService, CountdownLatch) driving 1,000 concurrent requests across 4 quorum configurations, benchmarking p50/p95/p99 latency (208ms–631ms) to quantify consistency-vs-availability trade-offs
- Implemented version-based conflict detection and a JUnit consistency suite verifying write-then-read correctness with zero stale reads; containerized the cluster with Docker Compose for local testing

Object-Oriented Design Systems in Java

- Designed an arbitrary-precision integer arithmetic library from scratch using a custom singly-linked-list digit representation, implementing addition, comparison, and shift operations, validated with 38 JUnit tests
- Built a rescue-bird conservatory management system enforcing capacity and species-compatibility constraints across a 3-tier class hierarchy (abstract classes, enums, polymorphism), backed by a formal UML design doc and 29 JUnit tests
- Additional coursework: an immutable state-machine model of automatic gear-shifting logic and a bidirectional look-and-say sequence iterator, each validated with dedicated JUnit suites

AI Agent-Powered Technical Interview Prep App

- Architected a job preparation desktop application using Tauri, Typescript and native Rust backend, implemented AI driven features like resume analysis, behavioral questions template matching, STAR story telling linkage and conversational project deep dive exercises

- Architected a grounded fan-out/fan-in RAG pipeline: 3 parallel Claude calls synthesize scraped source docs into a structured knowledge base, then a downstream quiz stage conditions on that synthesis (not raw model knowledge) and further splits into difficulty-diverse parallel sub-calls to cut latency
- Built a 3-role agent chain for interview prep — an interviewer agent that generates 5 dimension-specific deep-dive questions per resume bullet, a coach agent that rewrites answers to a style rubric, and a grader agent that scores answers against a fixed strengths/gaps/verdict rubric
- Engineered fault-tolerant agent execution: a multi-layer JSON self-healing parser that recovers valid data from malformed LLM output, and a batch vision-extraction pipeline that auto-falls-back to per-item retries so one failure doesn't kill the run

Work Experiences

Dabbers LLC, UX/UI Designer

02/2024 to 03/2026, Sunnyvale, CA

- Designed and developed the Dabbers e-commerce website using Shopify Liquid, HTML/CSS and JavaScript, building responsive layouts and templates, and interactive browsing flows for online trading
- Designed and implemented reusable frontend components and maintained a lightweight design system within Shopify to ensure visual consistency, faster updates and scalability for product lines
- Managed continuous content updates of game event pages, product drops, and seasonal campaigns by using Shopify Analytics and Google Analytics to refine UX flows and boost engagement and conversion
- Monitored site analytics and user behavior to inform iterative design changes, increasing event engagement and conversion rates through data-driven UX refinements

Designity, UX/UI Designer

06/2021 to 06/2024, Remote

- Designed the user flow of an AI Telemetry Data Pipeline & Log Analysis Platform, partnered with backend software engineers to build the context data flow in the LLM inferencing lifecycle
- Designed and launched several websites for a health system and service centers e2e by using Wix Studio
- Led internal concept and ideation sessions with cross-functional team members and stakeholders
- Excelled in producing high-quality UX design solutions, leveraging user flow, wireframes, high fidelity interfaces, prototypes, and design systems to drive increased conversion rates and user engagement

Comcast/Xfinity, Product Designer

08/2021 to 07/2023, Sunnyvale, CA

- Audited and integrated a new design system into Xfinity's multi-product activation flow across iOS and Android, improving cross-platform UI/UX consistency
- Led the migration of a component library from Sketch to Figma, consolidating cross-platform design system architecture and interaction specs for engineering handoff
- Owned end-to-end onboarding UX for the Xfinity Flex streaming TV box, collaborating with engineering, content, and product teams to design the B2C setup and activation flow across web and device platforms
- Partnered with development, content, visual, and product teams to design B2C onboarding experiences for Xfinity connected devices across multiple platforms

Slang.AI, Conversation Designer

11/2020 to 05/2021, New York, NY

- Held sample scripting workshops to resolve complex scenarios and create best practice flows
- Reimagined quantifiable and qualifiable surveys—increased customer satisfaction rate from 50% to 76%
- Redesigned company website slang.ai on Figma and deployed on Webflow
- Initiated customer self-service chatbot flow using Lucidchart and Dialogflow

Verizon 5G Innovation Lab, Graduate Fellow

11/2020 to 02/2021, New York, NY

- Designed & rapid prototyped an iPad interface with 5G and facial recognition technology
- Showcased final prototype at National Retail Federation x Verizon conference to 100+ company reps
- Collaborated with Verizon and FaceNote engineering teams to uncover opportunities for 5G in retail