

# HENRY CHIPMAN

Senior Software Engineer

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206.240.6461  
Seattle, WA

Motivated and pragmatic software engineer with 10+ years of experience architecting and building scalable distributed systems. Expert in high-throughput backend architecture, productionizing Machine Learning models, and cloud infrastructure. Thrives in fast paced collaborative team environments.

## Work Experience

### Founder

Present

*Henhouse Labs LLC | Seattle, WA*

Founded an independent software studio to design, build, and launch a portfolio of consumer-facing applications. Managed the full product lifecycle from product requirements gathering and system architecture to monetization and App Store deployment.

- **Fish Steps:** Designed and launched a gamified iOS health application that translates daily physical steps into a dynamic, interactive aquarium simulation to encourage user wellness. Architected an efficient checkpoint-based engine to process Apple HealthKit data alongside custom 2D pathfinding algorithms for in-game AI.
- **Reciplease:** Built an AI-powered smart kitchen companion for iOS that utilizes computer vision to scan user ingredients and generate personalized recipes and meal plans. Developed a robust SwiftUI architecture backed by Firebase, StoreKit, and custom backend APIs to securely manage tiered subscriptions and generative AI workflows.
- **Trail Finder:** Created an interactive Next.js web application utilizing Mapbox GL JS to allow users to visually explore and filter over 6,000 Washington State hiking trails. Engineered a custom Node.js build-time data pipeline to preprocess massive GeoJSON datasets into a highly optimized, in-memory spatial R-tree index, successfully deploying the containerized full-stack service via Google Cloud Run.

### FOUNDING SOFTWARE ENGINEER

Jun 2023 - Jan 2026

*EXCARTA | San Francisco, CA*

- Architected and implemented highly scalable and resilient weather forecast APIs for global weather ML models, capable of serving 2,000+ concurrent requests per second with sub-30ms latency through horizontal sharding and distributed caching.
- Architected end-to-end software systems including application frameworks, CI/CD pipelines, frontend dashboards, and multi-environment cloud infrastructure.
- Designed and implemented severe weather alerting platform for real-time hail detection and SMS delivery, leveraging AI technologies to provide reliable automated weather outlooks and summaries.
- Implemented large-scale experimentation environments to tune model and application performance across millions of users and global geospatial data, visualizing and communicating key metrics via custom React analytics dashboards.

### SENIOR SOFTWARE ENGINEER

Jan 2022 - Apr 2023

*MASTERCLASS | San Francisco, CA*

- Led the architectural design and implementation of multi-profile account support; orchestrated cross-functional delivery to hit time-sensitive milestones and executed a zero-downtime release for 2M+ active subscribers. Actively communicated rollout plan, risks, and status updates to leadership team.
- Developed backend systems and admin ingestion interfaces for a new episodic "Series" video course format.
- Partnered with stakeholders to design internal APIs and contributed to engineering guild initiatives focused on reducing tech debt and improving quality.

## SOFTWARE ENGINEER

ZULILY | Seattle, WA

Feb 2017 - Jan 2022

- Scaled high-volume systems to process 100k+ daily transactions and orders.
- Delivered \$3M+ annual savings through cross-functional ASN data integration for warehouse inventory planning.
- Orchestrated software migration to AWS platform, improving infrastructure portability and cloud performance.

## SOFTWARE DEVELOPER

TYEMILL | Seattle, WA

Jun 2014 - May 2016

Promoted from intern to full stack software developer, collaborating on custom software solutions for financial and medical domain clients.

## Core Skills

**Languages:** Kotlin, Java, Python, Golang, SQL, Javascript, Ruby, Swift

**Frontend:** React, Next.js, TypeScript, HTML/CSS, SwiftUI

**Cloud & DevOps:** Google Cloud Platform (GCP), Terraform, Kubernetes, Docker, Helm, CI/CD, Github Actions, Amazon Web Services (AWS)

**Data:** PostgreSQL, Pub/Sub, PostGIS, MySQL, MongoDB, Redis, RabbitMQ, Kafka

**Operational:** Mentorship, Technical Design Documentation, Sprint & Capacity Planning, Incident Response, Blameless Incident Post-mortem, Stakeholder Alignment & Communication

**Core Competencies:** Systems Design & Architecture, Design & Code Review, AI Model Prompt Engineering, Full-stack Development, Data Modeling, API Design, Scalability & Performance Tuning, Event-Driven Architecture, Cloud Infrastructure & Application Security, Distributed Microservices, Database Design, Mobile Architecture, Cloud Cost Optimization

## Education

UNIVERSITY OF WASHINGTON

2011 - 2015

B.S. Informatics

Minor: Earth & Space Sciences

## Certificates

Generative Artificial Intelligence (AI) Leader

Mar 2026

Google