

Alan Rager

Comprehensive Experience in Software Development & Systems Engineering

Applications & Mobile, Containers & Orchestration, Arm64 Linux, Embedded Systems, Build Systems

Work Experience

Zendar | Build Engineer

Berkeley, CA | August 2023 – May 2024

- Primary build and CI/CD engineer for automotive imaging radar product (EAS, object classification)
- Supported signal processing backend across x86-64 (CUDA, NVIDIA GPUs) and NXP Aarch64 PurpleBox platforms
- Migrated NVIDIA dependencies from Ansible to CMake for seamless branch transitions without multiple CUDA versions
- Developed Yocto Linux build pipeline; integrated vendor BSP patches
- Modernized cron-based monitoring to Prometheus for improved responsiveness
- Reduced environment build time from 30 minutes to 2 minutes

Embark Trucks | Platform Software Engineer

San Francisco, CA | November 2022 – March 2023

- Build and platform software engineer for self-driving trucks using GPU-accelerated x86-64 systems running ROS
- Addressed technical debt accumulated since 2016 in build and deployment by breaking down a 40+ GB monolithic Docker layer into 60+ subcomponents
- Achieved 2x to 10x reduction in deployment time, minimizing truck downtime

Pinterest | Senior Mobile & Platform Software Engineer

San Francisco, CA | August 2018 – June 2022

- Responsible for architecting and implementing Pinterest's end-to-end Android build process, used to package and distribute weekly releases to hundreds of millions of monthly active users
- Developed Jenkins support for Aarch64 (Arm64) builds on AWS Graviton; Migrated Jenkins controller fleet off Kubernetes without incurring downtime in a live production environment
- Finalized and deployed a cloud-based project using QEMU to virtualize iOS clients
- Developed app modularization model adopted by Android team to decouple module dependencies for build-time improvements up to 2x

PlanGrid (Now Autodesk) | Senior Android Engineer

San Francisco, CA | Feb 2016 – June 2018

- Android client engineer for world's largest online repository of blueprint data
- Refactored Blueprint viewer & sheet comparison app with new tile-based streaming rendering engine
- Implemented offline "fuzzy" search using a custom C++ SQLite native module, bypassing native Android SQLite engine
- Owned build and release pipeline for publishing Android app

SharePractice | Senior Full-Stack Engineer

San Francisco, CA | March 2015 – December 2015

- Took over sole engineering responsibility of an existing Rails-based application used by healthcare practitioners to share patient outcomes on supplement efficacy in treatment plans
- Developed new event processing system in Clojure using Apache Storm to populate a graph database for a recommendation system.

- Built a frontend with React-Relay and GraphQL for new app concept

CreditKarma, Inc. (Now Intuit) | Full-Stack Engineer

San Francisco, CA | April 2014 – March 2015

- Built “Full Credit File” view from schematized bureau data using a Zend PHP backend and Backbone.js frontend

AppRedeem | Full-Stack Engineer, Android Engineer

San Francisco, CA | December 2012 – March 2014

- Dual-roles as Android Client and Full-Stack engineer
- Updated legacy Android applications and PHP backend
- Implemented a new chat app including Android Client and service backend (Rails with Redis persistence)

Bloodhound | Full-Stack Developer

San Francisco, CA | December 2009 – September 2012

- Tradeshow portal service— lead-generation, attendee maps, schedules, and booth traffic
- First full-time employee, responsible for PHP backend, jQuery frontend, and deployment via auto-scaling Amazon Web Services deployment.

Education

Stanford University

Stanford, CA | September 2007 – May 2009

- Studied engineering, currently on Leave of Absence.

Skills

Languages:

C, C++, Java, C#, Clojure, Ruby, Python, Kotlin, Go, JavaScript, PHP, various scripting

Tools:

Kubernetes, Jenkins, Docker, Ansible, CMake, Buildkite, Git, QEMU, Docker

Databases:

MySQL, PostGres, SQLite, Redis, Memcached, Prometheus