PATRICK J. AULD

STAFF SOFTWARE ENGINEE

I am a product-minded engineer with experience in startups and large companies. I have extensive experience building SaaS applications and platforms in hypergrowth environments. Several times, I have been the primary engineering leader for multiple teams. I can comfortably take on aspects of product management and be responsible for large projects end-to-end. I am open to Staff+ and CTO positions.

CONTACT

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EXPERTISE

Building SaaS products
Backend Development
Customer Obsession
Service Architecture
Engineering Culture
Mentoring

SKILLS

API Design
AWS
Database Design
Developer Productivity
GraphQL
Java/JVM
Kubernetes
NoSQL
PostgresDB
Python

WRITING

"How I Work" Personal README

Personal Tech Blog

BONUS

Eagle Scout
Amateur Wine Maker
Black Belt in Taekwondo
I've rock-climbed Half Dome

EXPERIENCE

2021 - 2023
Flexport
STAFF SOFTWARE ENGINEER

>> I designed and implemented a document digitalization system, resulting in a 40% increase in shipment data coverage with minimal cost implications.
>> I designed and built the first searchable graph of Flexport's logistics network and a shipment optimization feature using it. At the time of my departure, the optimization was on track to hit a >20% improvement in take rate (profit).

2019 - 2021
Autodesk
SOFTWARE ARCHITECT

>> I was the tech lead for web, mobile, backend platforms, development workflows, AWS Infrastructure, and quality tooling. Eight teams of ~60 developers total reported to my group.
>> I built a multi-region deployment system based on Kubernetes, which allows Autodesk's construction products to be deployed and sold in the AU and the EU with data sovereignty guarantees.
>> I developed engineering guidelines Autodesk's 15,000 engineers as the Production Readiness Program Steering Committee. The committee was a hand-picked group of nine.
>> I created an employee rotation program for ICs to try new positions. Voluntary attrition among participating teams dropped to almost zero while active.

2017 - 2019
PlanGrid | *Autodesk purchased PlanGrid in December of 2018*
ENGINEERING MANAGER
This position spans PlanGrid and Autodesk

>> I implemented distributed tracing across our application, from mobile devices to database calls. This resulted in nearly 100% coverage of user errors, allowed a 40% performance improvement in our mobile app, and exposed several infrastructure access errors.
>> I implemented a Service Mesh using Istio for all backend services, resulting in fully encrypted network calls required by compliance. It was done with zero downtime and no commitments from service owners.
>> I organized a recurring event that invited PlanGrid's vendors onsite for training and development, as well as internal tech talks, and served as an editor for our tech blog.

SYSTEMS ARCHITECT

>> I led our migration from Heroku to Kubernetes on AWS, saving >$50k monthly costs.
>> I designed processes, frameworks, and tools to break our monolith apart. Resulting in more than 60% of teams developing independent services within six months.
>> I created cross-team groups and events to enable the sharing of ideas without negatively impacting development velocity, all while PlanGrid doubled its engineering headcount twice in 18 months.

2013 - 2017
Birst
LEAD SOFTWARE ENGINEER
>> I designed and wrote authentication and edge proxy services as part of an SOA migration. Resulting in the monolith being broken into multiple services with no downtime.
>> I designed and built a DSL-based testing harness for integration and systems tests that allowed non-technical teams to write tests covering all key custom workflows.

2011 - 2013
DOMO
SOFTWARE ENGINEER
>> I designed and built the steaming data pipeline, which loads data and performs ETL transforms through plugins developed in-house and by external teams.

2007 - 2011
Elasta
SOFTWARE ENGINEER
>> I built a Cloud normalization API and SDK to allow services to be agnostic of the underlying platform. If that sounds hard now, try it in 2007.

2007 - 2007
NASA Ames
SOFTWARE ENGINEER
>> Collaboration with Google on https://moon.google.com

2006 - 2007
University of California, Santa Cruz
RESEACH ASSISTANT
>> I developed a method for tracking human movement in the presence of bulky clothing and using standard cameras such as those found in security systems.