

# Tim Cash

System Architecture, Software Engineering, and Operational Intelligence

03.10.2022  
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## EXPERIENCE

### Chromatic Systems, San Diego — Systems Guide

2020 - PRESENT

System Operations for Product Engineering and Executives  
IPO and Regulatory Compliance for Product Engineering Teams  
Intelligence and Geospatial Analysis for Failure Detection  
Growing Software Engineering Teams from 0 - 100  
AWS and GCP Architectures from Startup to IPO  
Reducing Mean Time to Recovery with CI/CD in Production

### Pluralsight, Salt Lake City — Software Architect

2018 - 2020

Video system architecture handling over a billion views globally  
Trained over 40 engineers in CI/CD and TDD  
Partnered with software engineering teams to meet SLAs  
Recommend AWS strategies to meet performance requirements  
Architecture for GCP data pipeline Dataflow and BigQuery  
Payments architecture technical legal and financial coordination

### Pluralsight, San Diego — Software Engineer

2016 - 2018

Designed video encoding systems for entire Pluralsight library  
Reduced video failures and buffering events from ~2% to ~0.2%  
Maintain entire encoded video library on AWS S3 and SQS  
Developed monitoring systems to maintain SLAs  
Reduced mean time to recovery from ~30 minutes to ~4 minutes  
Migrate to adaptive bitrate

### Oakleon, San Diego — Software Engineer

2014 - 2016

Designed graph data pipeline for realtime business operations  
Backend built on GCP, GCE, Firebase, BigQuery, Neo4j and ElasticSearch  
Frontend built with Javascript and Polymer

2000 - 2010

US Intelligence Community experience provided on request.

## SKILLS

AWS and GCP architectures  
with over 1000 production  
deployments on seven  
products

Next.js React Javascript CSS  
and HTML on 2 products

Node.js Dgraph BigQuery  
Kafka and Postgres on 3  
products

Relational, Graph, Column  
and Document database  
experience on 6 products.

Over 1000 professional  
presentations and training  
events

Creating art with  
mathematics

## EDUCATION & AWARDS

Bachelor of Science Applied  
Mathematics Magna Cum  
Laude

2018 and 2019 Pluralsight CEO  
Creators Grants

USAF Intelligence Operations  
School with Honors

## LANGUAGES

Production Scale: Javascript,  
C#.NET, and Python

Personal Projects: Golang and  
Mathematica

