

# Paul Kiernan

Medium humanoid (engineer), chaotic good

Class & Level Chief Technology Officer 13 • Race Human (Variant) • Background Sage (ECE) • Alignment Chaotic Good  
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## ABILITY SCORES

18 (+4) SYSTEMS	20 (+5) DATA	18 (+4) BACKEND
17 (+3) INFRA	16 (+3) LEADER	19 (+4) SCALE

## CHARACTER TRAITS

13-year veteran of large-scale distributed systems. Built Reddit's search indexing and analytics infrastructure serving 50M+ daily active users. Went from founding engineer to CTO at Phaselaw, shipping a multi-region platform from first commit. Holds a patent in mobile ad measurement.

## PROFICIENCIES

### Languages

Python • Scala • C++  
C • Java • Clojure  
Shell • SQL

### Data & Infrastructure

Kafka • Flink • Solr  
Lucene • Redshift • ZeroMQ  
HAProxy • AWS • Docker

### Familiar

JavaScript • CSS • PHP

## BACKSTORY

### Cornell University

BS in ECE, 2008–2012  
McMullen Dean Scholar  
Goldfarb Tradition Fellow  
Slope Media VP of Prod.  
Nanosat 6 Power Subsystem  
Cornell FSAE

## SENDING STONES

github/paulkiernan  
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@gaelic

## QUEST LOG

### Phaselaw — The Startup Forge

Jul 2023 – Nov 2025

#### Chief Technology Officer

Oct 2024 – Nov 2025

- ◆ Defined technical vision and system architecture for the platform, translating product requirements into scalable engineering roadmaps
- ◆ Built and led the engineering organization; established hiring processes, engineering culture, and team rituals
- ◆ Drove reliability and deployment practices including CI/CD pipelines, automated testing, and multi-region infrastructure-as-code
- ◆ Owned technical due diligence and stakeholder communications with investors and partners

#### Founding Backend Engineer

Jul 2023 – Oct 2024

- ◆ Designed and built the core backend platform from zero—data models, API layer, auth, and service architecture deployed across multiple global regions
- ◆ Made foundational technology choices (language, framework, database, cloud provider) that defined the product's technical trajectory
- ◆ Established development workflows, code review standards, and observability tooling from day one

### Reddit Inc. — The Front Page Campaign

Jul 2018 – Jul 2023

#### Staff Software Engineer

Nov 2019 – Jul 2023

- ◆ Architected Reddit's search indexing pipeline in Scala on Apache Flink, processing millions of events per second against a Solr/Lucene backend
- ◆ Built out the Kafka infrastructure underpinning all of Reddit's analytics, data warehousing, and event streaming systems
- ◆ Designed and operated large-scale distributed systems serving Reddit's 50M+ daily active users

#### Senior Software Engineer II

Jul 2018 – Nov 2019

- ◆ Developed core backend infrastructure and data pipeline services supporting Reddit's rapid growth in engagement and traffic

### Chartbeat Inc. — The Real-Time Chronicles

Aug 2014 – Jul 2018

#### Head of Backend Engineering

Oct 2016 – Jul 2018

- ◆ Forged *MrRoboto*, a replicated C++ key-value store capable of 500k+ writes/sec with LMDB copy-on-write b-tree and Chain Replication
- ◆ Forged *Miata*, a real-time streaming analytics framework using Kafka, ZeroMQ, and Python
- ◆ Led a party of 8 backend engineers across 4 product teams; conducted weekly 1-on-1s with each party member

#### Backend Team Lead

Oct 2015 – Oct 2016

- ◆ Led R&D team developing experimental products; presented research and new products to the Chartbeat Board
- ◆ Built *Goby*, a scrying dashboard for the most engaging articles in the Chartbeat News Network
- ◆ Implemented RPCA outlier detection for surfacing anomalous traffic patterns in topics on the Chartbeat network

#### Backend Developer

Aug 2014 – Oct 2015

- ◆ Open-sourced *Parselmouth*, an object-oriented interface for abstracting away the ugly parts of ad server APIs
- ◆ Primary backend engineer behind *Loveboat*, Chartbeat Advertising's V2 APIs

### Moat Inc. (acq. Oracle) — The Crawler Dungeons

Jun 2012 – Aug 2014

#### Software Developer

Jun 2012 – Aug 2014

- ◆ Early team member behind Moat Pro, an enterprise ad-intelligence platform for researching trends in online advertising
- ◆ Engineered a network of web crawlers for detecting and indexing online advertisements across geographical regions
- ◆ Designed ETL pipeline for aggregating warehoused index results; developed analytics reporting API and Pyramid web application