

Clayton Schuler

Software engineer — distributed systems, AI infrastructure, decision automation

<https://www.linkedin.com/in/claytonschuler/> · <https://github.com/sle7in>

Software engineer specializing in distributed systems, AI infrastructure, and decision automation platforms. Experience building enterprise systems supporting thousands of applications, designing agentic AI architectures that analyze operational telemetry and biomedical data, and working with high-volume, low-latency data throughput.

PROFESSIONAL EXPERIENCE

Capital One — Lead Software Engineer / Tech Lead · 2025 – present

- Technical lead across three engineering teams (18 engineers) responsible for enterprise platform observability supporting 5,000+ internal applications and petabytes of telemetry data.
- Implemented an OpenTelemetry collection pipeline processing 100–300 TB daily, sub-20-second end-to-end from collect through transform to an Apache Iceberg datalake.
- Architected a multi-agent AI incident-analysis platform (LangGraph, ReAct-style reasoning), reducing incident resolution time from 96 minutes to 36 minutes.
- Led migration of enterprise monitoring from New Relic to Observe Inc, reducing ~500,000 monitors to ~150 parameterized monitors (~95% less maintenance overhead).
- Designed unbounded-scale AI pipeline infrastructure for hundreds of parallel data streams, with three caching layers in the inference path; deployed self-hosted open-weight LLMs on Fargate/Kubernetes.
- Led a genAI pilot pod building an Observability MCP server; designed a serverless gateway backing CI/CD for 5,000+ applications.
- Delivered "Taming the LLM Bottleneck" at Async Live 2026 (national engineering conference); first place, national Capital One GenAI Hackathon — funded to production; directed the AI second-brain initiative across a 1,700-person vertical.

PrimeMaxing — Founder / Technical Lead · 2024 – present

- Built an AI-driven health analytics platform interpreting blood biomarker data.
- Designed HIPAA-conscious architecture — React, AWS Lambda, DynamoDB, and LLM analysis pipelines — with multi-tenant clinic infrastructure for patient and clinician workflows.
- Persistent-memory LLM with smart context injection over MCP, on PII-sanitized chats; LLM-as-judge regression testing for prompt optimization.
- Running a pilot deployment with a partner clinic; conducting product demos with healthcare organizations.

Clearpool Group — Associate Software Developer · 2022 – 2025

- Developed distributed systems supporting low-latency trading infrastructure (<10μs latency targets).
- Built components of a custom order management system processing high-volume market data.
- Implemented messaging infrastructure with Kafka, gRPC, UDP, and Chronicle Queue; designed sharded relational databases optimized for high-performance writes with S3 archival.

Independent Algorithmic Trading Platform — Designer / Operator · 2021 – 2022

- Designed a probabilistic trading platform executing \$10M+ in options trades.
- Built real-time market data ingestion from multiple broker APIs; statistical signal generation in Python and pandas.

Health Restored — Software Developer · 2020 – 2022

- Built clinical biomarker analysis software automating lab interpretation and physician reports.

Cryptocurrency AlgoTrader — Co-Founder · 2016 – 2017

- Built a multi-exchange cryptocurrency arbitrage trading system on cross-market price discrepancies.

RESEARCH EXPERIENCE

Emerald Cloud Lab — Senior Lab Scientist · 2015 – 2016

- Designed and automated robotic DNA & PNA synthesis, cell culture, and molecular experimentation.

Akina Virology Lab — Research Associate · 2013 – 2015

- Published research on viral vector engineering and gene therapy systems in Virology, 2016.

EDUCATION

- Colorado State University — B.S. Biomedical Science (Highest Honors, Dean's List, Keynote Speaker)
- Stanford Online — Algorithm Design
- Udacity — Data Analysis

TECHNICAL SKILLS

Languages: Python, Java, JavaScript

AI / ML systems: LangGraph, ReAct agent architectures, LLM tooling, agent orchestration

Distributed systems: Kafka, gRPC, data streaming, Chronicle Queue

Cloud infrastructure: AWS Lambda, Fargate, API Gateway, DynamoDB, S3, RDS