John Noecker Jr.

Backend & Distributed Systems Engineer
AWS-first — JVM-heavy — Reliability-minded
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SUMMARY

Backend-focused software engineer with 15+ years of experience designing and operating scalable, fault-tolerant systems in cloud-native environments. Deep expertise in AWS and JVM-based services (Java, Kotlin), with a strong emphasis on production reliability, cost awareness, and pragmatic architecture. Experienced mentor and interviewer with a long track record of helping engineers grow while delivering high-impact backend systems.

TECHNICAL SKILLS

Languages: Java, Kotlin, TypeScript, Python
Backend & APIs: Spring Boot, Node.js, REST, HTTP, JSON, microservices
Cloud (Primary): AWS (Lambda, EC2, S3, DynamoDB, API Gateway, CloudFormation)
Datastores: DynamoDB, S3, relational databases, NoSQL, data modeling
Testing & Quality: JUnit, Mockito, Jest, unit testing, integration testing
DevOps & Delivery: Jenkins, CI/CD, Docker, Git, build and release pipelines
Containers & IaC (Working Knowledge): Kubernetes, Terraform
Reliability & Observability: logging, metrics, monitoring, alerting

EXPERIENCE

Noecker & Associates   Aug 2020 – Present
Staff Software Engineer (Independent / Freelance)

- Operated at staff-level scope across architecture, delivery, and production support for backend and cloud systems, often serving as the most senior technical contributor on engagements.
- Designed and delivered backend and serverless systems on AWS using Spring Boot (Java, Kotlin), and Node.js (JavaScript, TypeScript), emphasizing reliability, observability, and cost control.
- Led legacy-to-cloud migrations using AWS Lambda, API Gateway, S3, and DynamoDB, aligned with AWS Well-Architected best practices.
- Reduced deployment time by 60% by improving CI/CD pipelines with Jenkins and Docker.
- Served as a senior technical advisor for architecture reviews, production incidents, and long-term system evolution.
- Worked across ambiguous problem spaces with limited requirements, helping clients clarify system boundaries, data contracts, and operational expectations.
- Emphasized observability-first design, including structured logging, metrics, and alerting to reduce mean time-to-diagnosis in production.

Enzyme   Jan 2019 – Jul 2020
Senior Software Engineer

- Built a greenfield platform using TypeScript, React, and Node.js to automate backend workflows supporting FDA 510(k) data extraction.
- Designed backend services for large-scale document processing with strong correctness and auditability requirements.
- Worked closely with domain experts to translate regulatory constraints into maintainable backend systems.
- Implemented backend validation and audit trails to support regulatory review and internal compliance requirements.

Signifyd   Aug 2016 – Dec 2018
Software Engineer

- Improved backend throughput and latency by optimizing caching strategies and service performance characteristics.
- Reduced recurring data costs by approximately $100K/month through vendor evaluation and integration of more efficient data sources.
- Contributed to production systems operating at scale with an emphasis on correctness and availability.
- Participated in architectural discussions around service boundaries, caching layers, and data flow under high-volume transaction load.

Juola & Associates

Software Engineer

Aug 2010 – Jul 2016

- Designed and implemented production-grade systems supporting forensic and legal analysis, used in national security and high-profile litigation contexts.
- Ensured methodologies were testable, reproducible, and defensible under legal scrutiny, including standards required to pass Daubert admissibility challenges.
- Published peer-reviewed research, contributed to a $1.6M government grant, and co-authored two U.S. patents related to authorship technologies.

Evaluating Variations in Language Laboratory

Software Engineer (Applied Research)

Aug 2010 – Oct 2014

Pittsburgh, PA

- Applied authorship attribution systems to high-profile legal and investigative cases, including The Cuckoo's Calling, Bitcoin's Satoshi Nakamoto, and Chevron v. Donziger.
- Developed and maintained in-house analytical tooling and contributed to open-source forensic software (JGAAP), emphasizing reproducibility and methodological transparency.

PROTEUS Technologies

Software Engineer

May 2009 – Aug 2010

Annapolis Junction, MD

- Built tools to parse and summarize extremely large datasets, emphasizing performance, scalability, and reliability.
- Designed a unified data processing system, achieving a 1000x reduction in processing time over ad-hoc workflows.

SELECTED SYSTEMS & PROJECTS

Cloud-native Backend Modernization: Migrated monolithic workloads to AWS-managed services, prioritizing incremental delivery, backward compatibility, and operational safety.

Linguistic Attribution Systems: Built and maintained backend services supporting forensic linguistics workflows where correctness, explainability, and reproducibility were critical.

EDUCATION

Duquesne University

B.S. Computer Science   —   B.A. Mathematics

- Graduated summa cum laude; valedictorian in Liberal Arts, Computer Science, and Mathematics.

Georgia Institute of Technology

Graduate Coursework, Computer Science

- Completed advanced graduate coursework in machine learning, artificial intelligence and robotics.

CERTIFICATIONS

AWS Certified Solutions Architect – Associate

Aug 2023 – Present

LEADERSHIP & MENTORSHIP

Karat / Brilliant Black Minds

Senior Interview Engineer (Freelance)

Jan 2019 – Present

- Conducted 3,000+ technical interviews for partners including Citi, Indeed, and Roblox.
- Mentored 500+ engineers through mock interviews and structured, actionable technical feedback.
- Provided calibrated feedback on system design tradeoffs, communication clarity, and production-readiness.

Independent Business Ownership

Owner & General Manager

Jan 2014 – Feb 2025

- Owned and operated a small business for over a decade, managing hiring, training, finances, and day-to-day operations.
- Authored and delivered a state-approved apprenticeship curriculum, mentoring junior professionals end-to-end.

PATENTS

Authorship Technologies — Patrick Juola, John Noecker Jr., et al.
U.S. Patents: US-11605055-B2, US-10657494-B2