

Olaf Grette

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Work Experience

Meta – Senior Engineer, Blob Storage Capacity and Efficiency

Oct 2025 – Present

Amazon Web Services – Senior Software Engineer, EC2 Networking Analytics

Nov 2020 – Sep 2025

Led analytics engineering team for operational data from AWS's custom Software Defined Networking (VPC dataplane) implementation running on network cards in every physical EC2 host worldwide. The team's analytics platform and tooling supported operational intelligence, business intelligence, emission of customer-facing instance networking metrics, and proactive EC2 capacity management. Grew team from 4 to 12 engineers while serving as subject matter expert in analytics for the broader organization of embedded software engineers and networking specialists.

- Developed and maintained multi-year roadmap and vision document, informing executive leadership on technical direction and product offerings to serve customer experience and business needs
- Proposed, designed, and led development of metrics ingestion platform reducing processing time from 32 hours to 15 minutes with 75% cost reduction by migrating from Redshift-based ETL to Lambda/Step Functions/EMR architecture
- Led the team in enhancing a Spark job orchestration platform to enable processing 125TB+ of operational data and insights datasets daily across all AWS regions with sub-2-hour analytics generation SLAs, reducing customer issue detection and resolution time from multiple days (or not at all) to less than one day
- Designed anomaly detection strategy on team's platform to concurrently monitor billions of time series across EC2 instances and network interfaces to detect deployment regressions in noisy customer-driven metrics
- Provided critical analysis and subject matter expertise during high-pressure operational events to resolve large outages affecting tens of thousands of EC2 Networking customers

Amazon Web Services – Software Engineer II, Amazon Keyspaces

Jan 2020 – Nov 2020

Worked as an individual contributor on control plane services for Amazon Keyspaces (managed Apache Cassandra), focusing on distributed management of table schema and backend data stores. Contributed to bringing Amazon Keyspaces from private preview to General Availability.

- Designed and implemented distributed column-dropping feature for Keyspaces tables, resulting in a US patent for efficient data store operations

Amazon Prime Video – Software Engineer II, Personalization & Machine Learning

Oct 2018 – Jan 2020

Worked as an individual contributor on backend services and ML pipelines for personalizing box art on Prime Video UI, focusing on correlating customer behavior with served artwork to optimize user engagement.

- Led project to optimize operational efficiency of Apache Spark data processing jobs, reducing costs by 64% and increasing processing capacity by 33% (\$150k/year savings)
- Designed and implemented software subsystem to dynamically pull and cache updated model weights from S3 without requiring software deployment

Omron Microscan – Software Engineer, Manufacturing Automation

Feb 2017 – Oct 2018

Served as sole software engineer in manufacturing operations, responsible for all production line software used by technicians to set up, test, and flash firmware on laser barcode scanners, code reading cameras, and machine vision systems. Coordinated with embedded software engineers on production requirements and maintained system integrations.

- Developed tracking system for production metrics and production flow enforcement (C#, MSSQL, Power BI), enabling data-driven improvements that increased line throughput by 10% at no additional cost through rebalanced station types
- Developed integrated robotics solution for focusing camera lenses to fixed focal distance using gradient descent optimization over sharpness values and stepper motor positioning
- Redesigned and rearchitected line software fixture to use C# scripting instead of XML-defined processes, reducing maintenance effort for adding new models and submodels

Intellectual Property

US Patent 11860835 - Efficient drop column requests in a non-relational data store

- Scanning offline backup of NoSQL data store in order to remove non-accessible tombstoned data from live table without using live read capacity

Education

Pacific Lutheran University

- Bachelor of Science - Majors in Computer Engineering (ABET accredited) and Computer Science, Mathematics Minor