Software Engineer (Core Storage), ActiveScale

Permanent position / Full-time

Ghent – Belgium (hybrid)

With over 40 years of innovation, Quantum's end-to-end platform is uniquely equipped to orchestrate, protect, and enrich data across its lifecycle, providing intelligence and actionable insights. Leading organizations in cloud services, entertainment, government, research, education, transportation, and enterprise IT trust Quantum to bring their data to life, because data makes life better, safer, and smarter.

Quantum Corporation (QMCO) is a NASDAQ publicly traded company. For more information visit www.quantum.com.

We are looking for a Software Engineer to strengthen our engineering organization at the ActiveScale development center of Quantum in Ghent, Belgium. ActiveScale is Quantum's high-performance object storage platform, designed to scale to exabyte levels while meeting enterprise requirements for durability, performance and operability. See for yourself at https://www.quantum.com/en/products/object-storage/

This role is ideal for engineers who enjoy working on our latest Object Storage systems that provide storage capabilities up to Exabyte scale seamlessly.

Your role

This is a position in the core storage team of the ActiveScale product. This team is responsible for the core I/O pipeline: handling S3 requests, ensuring data durability and performance across storage media, and optimizing how data flows through the system at massive scale.

Your responsibilities

- Design and implement features in the ActiveScale data path, handling the flow from incoming S3 requests to durable storage across NVMe, HDD, and tape.
- Improve the performance, scalability, and reliability of the I/O pipeline to support exabyte-scale deployments.
- Work on components that implement and extend the AWS S3 API, ensuring correct protocol behavior and efficient request handling.
- Analyze and optimize concurrency, throughput, fault tolerance, and data placement to enhance system performance and durability.
- Contribute to the evolution of internal APIs, services, and interfaces that support the data path.
- Produce clean, maintainable, and well-documented code, following established coding standards.
- Create comprehensive unit, component, and integration tests to validate functionality and prevent regressions.
- Use our CI pipelines to validate changes, iterate, and maintain a stable delivery process.
- Participate in code reviews, providing and receiving constructive feedback.

- Drive features from concept to completion: prototype, iterate based on peer input, and deliver production-ready functionality with sufficient automated testing.
- Prepare and deliver clear demos of new functionality to peers and stakeholders, sharing progress, and collecting useful feedback.
- Collaborate with cross-functional and distributed teams to refine designs, improve existing features, and ensure customer-centric decision-making.

Skills and expertise

- Master's degree or Ph.D in software engineering, computer science, physics or mathematics, or equivalent experience.
- Experience with one or more of the following: Python, Go, C++, Rust, OCaml and/or willingness to develop skills in additional programming languages.
- Experience with API protocols such as REST, gRPC, or thrift.
- Experience with systems programming on Linux.
- Understanding Cloud and Enterprise storage concepts and products.
- Understanding scaling concepts (sharding, networking, distributed computing).
- Understanding characteristics of different storage media like HDD, SSD, NVMe, and tape.
- Comfortable working with a global and distributed team.

Skills considered a plus

- Knowledge of Amazon's AWS S3 API, SDK's & tools.
- Knowledge of erasure coding principles.
- Experience with object storage and distributed systems.
- Experience with algorithms for concurrency, thread safety, and memory management.
- Experience with git, Jenkins, and Docker.
- Experience with noSQL databases like MongoDB.
- Experience with functional programming.
- Experience with event driven architecture (Kafka).

We know the confidence gap and imposter syndrome can get in the way of meeting amazing candidates. Please consider applying, even if your background and experience don't meet every bullet point in this job post — we'd love to hear from you.

Personality

- You take ownership and responsibility for the software you build.
- You are pragmatic, curious, and motivated to improve complex systems.
- You welcome feedback from peers through code review and pair programming.
- You appreciate working in an environment with clear coding guidelines and high standards for code quality.

What we offer

- Working at Quantum means that you will be working in a team with seasoned and passionate experts in their respective domains. As a team, we eat complex challenges for breakfast, such as building a high-performance Exabyte Storage System that makes datacenters worldwide 'Cloud Storage-ready'.
- You are the key to success for Quantum. That's why you will get a competitive salary, a company car, a complete insurance package, meal vouchers, a mobile phone, and an Internet subscription.
- Flexible working hours and a hybrid work model (3 days on site)
- A culture that values learning, ownership, and long-term thinking.

Quantum is an equal opportunity employer. All employment decisions shall be made without regard to race, age, religion, color, marital status, national origin, gender, gender identity or expression, sexual orientation, or disability.