Technology

BlackRock was founded by eight entrepreneurs who wanted to start a very different company. One that combined the best of a financial leader and a technology pioneer. And one that focused many diverse views on a singular purpose: to create a better financial future for our clients - companies, governments, and millions of individuals saving for retirement, their children's educations, and a better life.

Being part of BlackRock means being part of a community of smart, ambitious people. People who value diversity of thought, perspective and background, who believe everyone has a voice at the table. So, whatever your background, whatever you're studying, there's a place for you here.

SOFTWARE ENGINEERING

At the heart of BlackRock is a world-class technology system called Aladdin. It is an unmatched operating platform that unites all the information, people, and technology needed to manage money in real time and at every step in the investment process. Unlike other financial firms, technology at BlackRock is a profit center, not a support function, and stands on its own as a fast-growing business. Developers work in teams focused on specific components of Aladdin and use innovative new technologies to build solutions for BlackRock and many Aladdin clients.

ALADDIN CLIENT SERVICES
Become an Aladdin Ninja

Every day, the Aladdin Client Services Team tackles the hardest, most sophisticated problems in FinTech. We utilize our in-depth understanding of Aladdin, our clients' businesses, and the investment management process to provide world-class customer service to our rapidly-growing, global client base. We all studied different things and bring unique skills and experiences to the table, but we all share a serious passion for solving tough problems and keeping our clients happy.

PORTFOLIO ANALYTICS
Create and deliver analytics to help solve business problems

The Portfolio Analytics Group (PAG) within BlackRock Solutions creates and delivers Aladdin's analytical capabilities to help the firm and our clients understand and manage their investments and risk. Our group leverages financial expertise, technical skills and knowledge of the investment process to implement scalable solutions. Analysts develop a comprehensive understanding of finance, clients, and technology; they learn to navigate all groups at BlackRock to solve business problems.

careers.blackrock.com

Technology

BlackRock was founded by eight entrepreneurs who wanted to start a very different company. One that combined the best of a financial leader and a technology pioneer. And one that focused many diverse views on a singular purpose: to create a better financial future for our clients - companies, governments, and millions of individuals saving for retirement, their children's educations, and a better life.

Being part of BlackRock means being part of a community of smart, ambitious people. People who value diversity of thought, perspective and background, who believe everyone has a voice at the table. So, whatever your background, whatever you're studying, there's a place for you here.

TECHNOLOGY SUPPORT
Maintain the stability and efficiency of the Aladdin platform for BlackRock and our clients

Aladdin is relied upon by dozens of the world's largest organisations to manage their business around the world, 24/7, and no one knows Aladdin like us. The Core Systems Operations team, consisting of system administrators, software developers, incident managers and project managers focus on maintaining the stability and efficiency of the Aladdin platform for BlackRock and our clients. CSO is a fast-paced team operating in a dynamic environment and we're constantly looking for new ways to improve our efficiencies, processes and automation.

INTERNAL AUDIT
Support our global businesses to meet strategic, operational and risk management objectives

Internal Audit provides the unique opportunity to learn about the full breadth of BlackRock's businesses and functions. We perform project-based reviews to provide objective opinions, advice, and insight to help improve our operations and best serve the Firm's clients. We operate a global team which engages with all of BlackRock businesses and operations.

careers.blackrock.com

Software Engineering

BLACKROCK®

Software Engineering at BlackRock builds products and services to meet the needs of BlackRock and all of our clients. Our technology culture and solutions help to distinguish BlackRock as an industry leader in both asset management and cutting-edge technologies. The team is made up of software engineers, data scientists, data engineers, quant developers, DevOps engineers, product managers, business analysts, UX engineers, UX designers and more, all working to drive innovation in the financial services industry.

Our teams are known for

- Being **passionate about technology and solving complex problems**
- Being from **diverse** industries and educational backgrounds
- Developing in Java, Python, Cassandra, Kubernetes, Kafka, Docker, a host of languages and open source technologies
- Being **technology thought leaders** that unlock incremental innovation and drive **technology culture** at BlackRock
- **Software Engineering Teams** are mostly centralized across three major organizations: **Aladdin Product Group, Aladdin Risk for Wealth Management** and **Digital Wealth Management.** There are also several specialized technology teams across other business areas.

As an analyst you will

- Gain a broad understanding of the **investment process and the capabilities of Aladdin**
- Become **a life-long learner** through our BlackRock Academies
- Work closely with senior engineers developing specific parts of the Aladdin platform. Take **ownership of small projects** and watch your creations be released to thousands of users
- Use **cutting edge technologies** such as Spark, Storm, Solr, Cassandra, Hadoop, Angular, React, iOS, and more
- Collaborate with colleagues to create innovative products during **firm wide hackathons**
- Meet smart, fun people through **volunteering, employee and professional networks**, and every-day interactions
- **Aladdin Product Group Only:** Participate in four 6-month assignments across various teams during a **two-year rotational program**, providing a breadth of experiences to teams, technologies and businesses.

Aladdin . . .

- Unifies all of BlackRock by providing a central technology platform that integrates our investment activities globally
- Supports the full lifecycle of the investment management process, from quantitative risk management to order entry, trading and settlement activities
- Runs as a commercial business

Engineering innovations

Real-time market data system

Leveraged Apache Storm to build a distributed, fault-tolerant platform to process streams of tens of millions of market data points for bonds and other financial instruments in real-time. The platform interacts with data stores such as Cassandra and Solr and uses machine learning algorithms to gain analytical insight into streaming data.

Predictive mortgage analysis

Created a distributed platform using Spark and Hadoop to analyze 1 billion loan-level mortgage observations growing at a rate of 25 million observations per month. Used machine learning algorithms on the entire data set to build a predictive model to identify whether a loan will default.

Engineering in the Works

- Open Aladdin – APIs and more
- Cloud Strategy
- DevOps and Site Reliability Engineering

Positions available in regions: Americas, EMEA

careers.blackrock.com

Aladdin Client Services

BLACKROCK®

Every day, the Aladdin Client Services (ACS) Team tackles the hardest, most sophisticated problems in FinTech. We utilize our in-depth understanding of Aladdin, our clients' businesses, and the investment management process to provide world-class customer service to our rapidly-growing, global client base. We all studied different things and bring unique skills and experiences to the table, but we all share a serious passion for solving tough problems and keeping our clients happy.

Our team is known for

Being product experts with a reputation for getting the job done. We…
- Deliver exceptional customer service to users, every time
- Solve difficult problems by providing innovative solutions
- Collaborate with others because we know we can do more together
- Figure out what needs to get done and then do it
- Learn every day, question everything, and embrace change
- Foster a fun, innovative team atmosphere

ACS has a long history of providing top talent to the Aladdin Business and broader BlackRock community – we are laser focused on giving Analysts the skills that they need for a successful career at BlackRock.

As an analyst you will

- **Answer questions and help our clients run their businesses on Aladdin:** You will take phone calls, emails, and chats from industry practitioners at some of the world's most respected investment institutions. You will solve problems that matter, making direct and measurable difference to our clients. In the process, you will build technical, industry, and relationship skills.
- **Use technology to solve problems:** We will teach you the skills you need to succeed, such as maneuvering relational databases and parsing product logs. We will also give you the opportunity to leverage the tech skills you already have. Know Scala? Help us fine tune our metrics offering! Passionate about Java script? Build self-service tools for our clients!
- **Educate users, leverage service insights, and relay user experience feedback to improve the customer experience and our product:** We believe that the best customer service is proactive, not reactive. We are students of our own data and engage with our clients to keep problems from arising, rather than dealing only with issues that are brought to our attention.

- Work on a global team, with a local presence: Our support model follows the sun – if a market is open somewhere in the world, so are we! You will get to work with teams across the world, while still engaging with a vibrant local team.

Aladdin at a glance

Aladdin is BlackRock's end-to-end investment platform. Just like the markets and users it services, it is complex and rapidly evolving:
- Home to over $17 trillion in assets under management
- Nearly 200 unique clients
- A rapidly growing client base that includes close to 30,000 users
- Presence in over 50 countries

As the Aladdin Client Community continues to grow, so does the Aladdin Business:
- Over 500 members of the Aladdin Business
- Over 1,500 engineers dedicated to developing Aladdin

The clients you will work with include some of the world's most sophisticated asset managers, insurance companies, banks, treasuries, pension funds, and sovereign wealth funds.

Positions available in all regions: Americas, EMEA, APAC

careers.blackrock.com

Portfolio Analytics

BlackRock®

The Portfolio Analytics Group (PAG) within BlackRock Solutions creates and delivers Aladdin's analytical capabilities to help the firm and our clients understand and manage their investments and risk. Our group leverages financial expertise, technical skills and knowledge of the investment process to implement innovative scalable solutions. Analysts develop a broad understanding of finance, clients, and technology; they learn to navigate all groups at BlackRock to solve business problems.

Our team is known for

- **Problem solving:** We partner with investment, risk and client-facing teams to understand their business problems and provide creative solutions using Aladdin analytics
- **Innovation:** We sit at the intersection of finance and technology. We conceptualize, design and implement new capabilities to ensure that Aladdin remains the best platform for clients to understand and manage portfolios and risk
- **Centralized & scalable operating platform:** Aladdin is a global investment platform that helps us solve problems in a scalable and efficient manner

As an analyst you will

- Gain a broad understanding of **analytics, markets, and Aladdin's capabilities**
- **Utilize analytical models, reports and large scale data processing tools** to help investment teams and clients manage their portfolio risk, exposure and performance
- Perform **special analyses in response to market events**, new business needs and client needs
- Contribute to the **creating, testing and roll-out** to risk managers of financial models, analytics and reporting for new security types and products
- Provide **rapid response tactical solutions** leveraging critical thinking, programming skills and creativity
- Coordinate with colleagues **globally**, across **cross-functional** teams
- **Engineer processes and enhance tools** to deliver analytics and support BlackRock's Aladdin technology infrastructure
- **Improve operational efficiencies** to enable scalable business growth
- Work with technology and analytics groups across BlackRock to build and deliver scalable customized solutions leveraging **Aladdin APIs and the Aladdin Data Sciences** platform

Develop a core skillset

As an analyst in PAG you will develop expertise in four core areas that will serve as the foundation for your career:
- Financial Markets
- Clients/Industries
- Technology/Aladdin
- Navigating BlackRock

Representative projects

Sustainable Investing Analytics
Developed scalable framework to assess Environmental, Social, and Governance (ESG) metrics across all portfolios, as well as using optimisation techniques to reduce risks such as carbon emissions while minimizing tracking error.

Industry peer risk analysis
Modelled suite of portfolios leveraging public data representing segments of the insurance industry. In depth analytics highlighted relevant trends enabling our client teams to deepen existing relationships and win new business.

Portfolio tools for Alternative Investments
Prototyped analytics and investment tools leveraging Python, R-Shiny and Tableau for managing multi-asset Alternative portfolios. Prototypes solidified the requirements and user experience and laid the foundation for future Aladdin apps.

Deployment of Attribution Models for Multi Asset
Partnered with the Financial Modeling Group, Risk and Quantitative Analysis group and Investment teams to model, build and deploy Enhanced Brinson attribution models across Multi Asset teams.

Custom Aladdin Client Demos
Collaborate with the Aladdin business to demonstrate Aladdin's enhanced analytical content and tools to new clients. Continually expand Aladdin's ecosystem to meet and anticipate client needs.

Positions available in all regions: Americas, EMEA, APAC

careers.blackrock.com

Technology Support

BLACKROCK®

Aladdin is relied upon by dozens of the world's largest organisations to manage their business around the world, 24/7, and no one knows Aladdin like us. The Core Systems Operations team, consisting of system administrators, software developers, incident managers and project managers focus on maintaining the stability and efficiency of the Aladdin platform for BlackRock and our clients. CSO is a fast-paced team operating in a dynamic environment and we're constantly looking for new ways to improve our efficiencies, processes and automation.

Our team is known for

- **Fixing Difficult Problems:** The most critical software and hardware issues come through and stop with us. We're always looking for new solutions and projects to improve the performance and recovery of Aladdin.
- **Disaster Recovery:** Hurricanes, snow storms, hardware failure and software bugs all pose a real threat when there are $Trillions at stake.
- **Collaboration:** Both inside and outside CSO, we work with all areas of the BlackRock business, from developers to relationship managers to ensure we continue to provide world-class service as we grow.
- **More than just a team:** It's easy to see Core Systems Operations as a community rather than just a department. When we're not solving some of the most challenging in the FinTech sector, we're organising Hackathons, Team Charity Days, Tech Meetups, running groups, table tennis, chess or video game tournaments and much, much more.

Core Systems Operations (CSO) is responsible for maintaining system performance and uptime for Aladdin and other critical applications used at BlackRock and our clients. We're problem solvers, innovators and the last line of defence against major software and hardware problems, aiming to fix potential issues before anyone ever notices! We're a rapidly-growing team from all different backgrounds working together on some of the industry's most complex challenges.

As an analyst you will

- Rotate across our teams learning our business and our technology stack on a 2 year programme tailored to you
- Participate in hands-on technical and business work using a variety of sophisticated technologies
- Work alongside Aladdin Developers, ACS, Relationship Managers and Infrastructure Engineers
- Contribute to a challenging, team-oriented environment with tremendous learning and growth potential

Teams at a glance

Production Operations

ProdOps is responsible for monitoring, supporting, and administering production environments for all BlackRock businesses, acting as a first responder relative to trouble-shooting, problem resolution and escalation.

DBA

The Database team is responsible for every aspect of database technology and strategy at BlackRock, across platforms such as SAP Sybase ASE / Repserver / IQ, Oracle. Microsoft SQL Server, Pivotal Greenplum and Apache Cassandra / Solr / Spark / Parquet.

Web Operations

The Web Operations Support Team is responsible for monitoring, supporting and enhancing BlackRock's internal and public web sites.
The team works with complex web application architectures, data flows, messaging systems and content management systems in a Unix/Linux environment.

Command Centre Operations

CCO is responsible for the global Command Center which proactively identifies, escalates, communicates and resolves incidents for BlackRock and external clients.
CCO also enhances stability through operationally focused development / automation, documentation, reporting and disaster recovery testing.

Client Technical Services

CTS plays an essential role in integrating cross-functional teams in support of Aladdin, providing technical support for Aladdin customers, leading the technical implementation of Aladdin at new BRS clients and acting as the internal liaison for BRS Client Relationship Managers.

Positions available in regions: EMEA

careers.blackrock.com

Internal Audit

BLACKROCK®

Internal Audit's primary mission is to provide assurance to the Board of Directors and executive management that BlackRock's businesses are well managed and meeting strategic, operational and risk management objectives. The team engages with senior leaders and all businesses globally to understand and advise on the risks in their business, evaluate the effectiveness of key processes and assist in the design of best practices that can improve their results.

Our team is known for

Building confidence in the firm:
- As an independent evaluator of BlackRock's operations, processes and controls
- As an advisor and partner to BlackRock's businesses
- As a trusted resource for the Board of Directors and senior leadership

Working with businesses across the firm:
- To help ensure their operations are working as intended
- To identify and help the business manage the risks inherent in their operations
- To assure that the controls built into our processes are working properly or effectively

The diversity of our skills, expertise, and backgrounds:
- Our people come from trading, sales, risk management, compliance, technology, finance, operations and other roles

As an Analyst you will

- Engage with BlackRock businesses to identify key processes and risks
- Evaluate process design and operations to analyze the effectiveness and efficiency of these processes
- Stay connected with businesses across the firm to understand changes to their risks and operations
- Participate in advisory projects aimed at optimizing business and technology control activities and processes

Teams at a glance

Business

With teams in the US, Europe, and Asia, the Business Audit group performs audits covering all BlackRock business units, including investment and asset management, risk management, operations, finance, and legal and compliance.

Technology

The Technology Audit group, also in the US, Europe and Asia, performs design review and testing related to technology controls across application systems and infrastructure components such as databases, operating systems, data centers and messaging platforms.

Positions available in regions: Americas

careers.blackrock.com