# BlackRock.

# Technology

Positions available in all regions: Americas, Europe, and Asia Pacific

# Together, we help more and more people experience financial well-being.

In particular, our Technology businesses build, maintain and utilize our technology platform, Aladdin, to make the world's investing information transparent and actionable.

# What business divisions sit within Technology?



#### **Aladdin Client Services**

Takes on the hardest, most sophisticated problems in FinTech to deliver outstanding client service to our rapidly growing, global client base



#### Aladdin Wealth Tech

Partner with clients and builds technology products to help them analyze their enterprise risk, build better portfolios, and amplify the value they deliver



#### **Internal Audit**

Supports our global businesses to meet strategic, operational and risk management objectives



#### **Portfolio Analytics**

Creates and delivers analytics to help solve business problems



#### Software Engineering

Builds technology products and services to drive innovation in the financial services industry



#### **Technology Operations**

Ensures our technology and processes run optimally



#### **Technology Support**

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

Full details of each role follow.

careers.blackrock.com

# **Aladdin Client Services**

### Positions are available in: Americas, Europe, and Asia Pacific

Every day, the Aladdin Client Services team tackles the hardest, most sophisticated problems in FinTech. We utilize our indepth understanding of Aladdin, our clients' businesses, and the investment management process to provide world-class service to our rapidly-growing, global client base. We all studied different things and bring diverse skills and experiences to the table, but we 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.
- As a team of 170+ strong globally, we...
  - Deliver exceptional client service to users, every time
  - Solve difficult problems by providing innovative solutions
  - Collaborate with others because we know we can do more together
  - Learn every day, question everything, and embrace change
  - Foster a fun, innovative team atmosphere

### At a glance:

Aladdin is BlackRock's end-to-end investment platform. Just like the markets and users it services, it is sophisticated and constantly evolving:

- Home to over \$17 trillion in assets under management
- Over 300 unique clients
- A rapidly growing client base that includes close to 30,000 users
- Presence in over 50 countries
- 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.

# What will you do as an analyst

- Answer questions and help our clients run their businesses on Aladdin: You will take phone calls, emails, and chats from industry practitioners at 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. After just your first few weeks on the desk, you will be using these skills to help clients and product teams make Aladdin better.
- Educate users, demonstrate service insights, and relay user experience feedback to improve the client experience and our product: We believe that the best client service is proactive, not reactive. We are students of our own data and engage with our clients to keep problems from arising, rather than only dealing 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.

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# BlackRock.

# **Aladdin Client Services**

# What capabilities are we looking for?

- Analytical approach
- Basic or intermediate coding and programming skills
- Client Service
- Critical thinking
- Multitasking

# Your learning & development will include:

We are laser focused on giving our Analysts the skills they need for a successful career in the Aladdin Business and BlackRock. During their second year, our Analysts have the opportunity to work on specialized projects with other Aladdin teams. These projects leverage their product, technical and client skills; launching them into impactful roles in our business.



# **Aladdin Wealth Technology**

### Positions are available in all regions: Americas, Europe, and Asia Pacific

We are a fast-growing FinTech business operating within BlackRock Solutions, and our mission is to demonstrate the power of BlackRock's data, scale, and financial models to give financial advisors the edge they need to deliver better outcomes to their end customers.

The Aladdin Wealth Tech team partners with wealth management clients to help them oversee their enterprise risk, build better portfolios, and enhance their value proposition to clients. This is achieved by leveraging risk analytics - powered by Aladdin<sup>®</sup> - to equip wealth management clients with model construction capabilities, risk monitoring tools, and portfolio construction & analytics.

## **Our business contains two teams:**

#### **Client Teams**

Manage and grow client relationships throughout the entire client life cycle, from early-stage sales pitches to technical implementations to managing live clients on the Aladdin Wealth platform

#### **Product Teams**

Design, develop, and deliver software and services that empower wealth managers to create better portfolios and deliver more value to their clients

Innovate and create higher scale in all aspects of our business, including the product, operations, and client service model

# What will you do as an analyst?

#### **Client Teams**

- Function as the internal representative for clients by driving alignment between the Aladdin Wealth offering and client needs
- Gather, compile, model, validate, and analyze data to provide meaningful insights
- Be the primary point of contact for all Tools, Analytics and Data related client inquiries
- · Perform technical analysis and support the design and development of new Aladdin Wealth product and risk capabilities
- Learn about our clients' business strategy and the broader wealth management industry to inform the product roadmap

#### **Product Teams**

- Develop application software and infrastructure in primarily Java/Scala (back-end engineering) or Typescript with React (front-end)
- Monitor and support the Aladdin Wealth platform
- Iterate on UI/UX with design teams to create experiences that maximize user delight for financial advisors (front-end)
- Measure, analyze, and improve the performance and reliability of Aladdin Wealth external APIs (back-end)
- Leverage distributed computing technology to scale up Aladdin Wealth capabilities to millions of portfolios (back-end)



# **Aladdin Wealth Technology**

# What capabilities are we looking for?

- Strong project management and coordination skills; able to manage multiple priorities
- Strong technical problem-solving skills and analytical thinking
- Strong communication skills, both written and verbal, with the ability to convey sophisticated concepts simply and clearly
- Strong computer skills and an aptitude for learning new systems. For back-end-focused roles, a passion for distributed databases is useful. For front-end-focused roles, experience with Typescript is useful

### Your learning & development will include:

- A robust training program and ongoing development through your time with the firm
- The skills and support network you need for a successful career at BLK
- The opportunity to work with some of the most sophisticated clients globally, while learning fundamental financial and technological skills
- Mentorship from experienced software engineers, product managers, analytics specialists and client relationship managers on the team



# **Internal Audit**

Positions available in: Americas, Europe, and Asia Pacific

# What does our business do?

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 business contains three teams:**

### **Technology Audit**

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.

#### **Business Audit**

Performs audits to review and assess the effectiveness of the business' processes, risks and controls and provides advice to improve their operations. Businesses that we partner with include all investment and client departments, business operations and other corporate functions.

### Our business is known for:

#### **Data Analytics**

Uses BlackRock data to build analytical tools and reports that assist the audit teams in delivering effective audits and contributes to department management through the analysis of Internal Audit data.

- Building confidence in the firm by acting as an independent evaluator of BlackRock's operations, processes and controls, advising and partnering with global businesses, and being a trusted source for the Board of Directors and senior leadership
- Working with partners across the company to help verify their operations are working as intended to identify and help the business manage the risks inherent in their operations and to assure that the controls built into our processes are working accurately and optimally
- The diversity of our skills, expertise and backgrounds, which extends across trading, sales, risk management, compliance, technology, finance, operations and other roles

# We partner with:

- Internally: Business leaders across all areas within BlackRock
- Externally: We report our findings to the BlackRock Inc. Board of Directors and Global Regulators



# **Internal Audit**

# What will you do as an analyst?

- Engage with BlackRock businesses to gain an understanding of each business' key processes, risks, controls and business objectives
- Perform testing of the design and effectiveness of the existing controls
- Partner with senior leaders to identify areas of improvement
- Participate in advisory projects that optimize new business and technology activities and processes
- Continuously engage with senior leaders across the firm to understand changes to their risks and operations

# What capabilities are we looking for?

- Relationship management
- Critical thinking
- Project management
- Analytical approach
- Basic or intermediate coding and programming skills (Technology Audit & Data Analytics)

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# **Portfolio Analytics**

# Positions are available in: Americas, Europe, and Asia Pacific

The Portfolio Analytics group delivers analytics that provide transparency to each client's portfolio on Aladdin<sup>®</sup>. We weave together Aladdin's world-class data, financial models and technology to develop meaningful insights for investment and client teams. Analysts on our team will develop a broad understanding of finance, clients, and technology. They will learn to navigate teams across BlackRock, to explore opportunities for new ways to apply data and analytics with high impact and deploy enhanced analytics to provide actionable insights into portfolios.

# **Our business contains five teams:**

#### **Client Business Analytics**

- Enable the firm to deliver tailored investment solutions and develop deeper partnerships with institutional clients
- Deliver sales enablement analytics and peer group analysis tools to drive sales of BlackRock products

#### **ETF and Fund Analytics**

- Provide analytic solutions to product and portfolio consulting teams that enable deeper client engagements and facilitate sales
- Deliver analytic insights that generate efficiencies in the investment and risk management processes of our ETF and Index Investments businesses

#### **Asset Allocation Analytics**

- Provide analytical insights and bespoke portfolio implementation tools to Multi-Asset Strategies and Client Portfolio Solutions teams
- Evolve Asset Allocation, Portfolio Construction and Performance Attribution capabilities of Aladdin

#### **Aladdin Platform Analytics**

- Enable access to analytics across BlackRock and the Aladdin community, as well as modernizing the underlying components of the analytics creation process
- Empower citizen developers in our investment and risk management teams with the latest in data, analytics and compute capabilities

#### **Active Investing Analytics**

- Develop and deliver analytic content for the Active Equities and Active Fixed Income investment businesses
- Deliver single-security valuation and risk models, and evolves Aladdin's risk management capabilities

# We partner with:

- Internally: Portfolio Managers, Risk Managers, Product Strategists, Portfolio Consultants, COOs of Investment teams, and many others
- Externally: Aladdin client community



# **Portfolio Analytics**

# What will you do as an analyst?

- · Gain an 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 opportunities and client needs
- Contribute to the creation, testing and roll-out of financial models, analytics and reporting for new security types and products
- · Provide rapid response tactical solutions demonstrating critical thinking, programming skills and creativity
- · Coordinate with colleagues globally, across cross-functional teams
- Engineer processes and improve 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 to build and deliver scalable customized solutions using Aladdin APIs and the Aladdin Data Sciences platform

# What capabilities are we looking for?

- Analytical approach
- · Basic or intermediate coding and programming skills
- Presentation skills
- Problem solving
- Technical curiosity

### Your learning & development will include:

You will develop expertise in multiple core areas that will serve as the foundation for your career, including:

- Financial markets
- Clients and industries
- Technology and the Aladdin platform



# **Software Engineering**

### Positions are available in all regions: Americas and Europe

We build products and services to meet the needs of BlackRock and our clients. Our technology culture and solutions help 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 team is known for:

- Being passionate about technology and solving complex problems
- Being from diverse industries and academic backgrounds
- Developing in Java, Python, Cassandra, Kubernetes, Kafka, Docker, a host of languages and open source technologies
- Being technology leaders that unlock incremental innovation and drive technology culture at BlackRock

# What will you do as an analyst?

- Take ownership of projects and watch your creations be released to thousands of users
- · Work closely with senior engineers developing specific parts of the Aladdin platform
- Collaborate with users and the product team to design new features
- Use ground-breaking technologies such as Spark, Storm, Solr, Cassandra, Hadoop, Angular, React, iOS and more
- Gain a broad understanding of the investment process and the capabilities of Aladdin
- · Collaborate with colleagues to build innovative products during firm-wide hackathons
- · Meet smart, fun people through volunteering, employee and professional networks, and every-day interactions

#### What capabilities are we looking for?

- Intermediate programming skills in an OO language (e.g., Java or Python)
- Problem-solving skills
- Communication skills
- Resourcefulness
- Critical thinking
- Technical curiosity

# Your learning & development will include:

- As part of the analyst program, you will participate in four 6-month assignments across various technology streams during a two-year rotational program, providing a breadth of experiences to teams, technologies and businesses.
- During the summer analyst program, you will work within one technology stream while gaining wider exposure through networking, social events and project work.

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# BlackRock.

# **Technology Operations**

#### Positions are available in: Americas, Europe, and Asia Pacific

Our business has over 3,000 employees across 40+ offices globally and is comprised of 6 different streams, spanning from Data & Artificial Intelligence to Provider Strategy. We are responsible for processes required for the end-to-end investment management process, providing operational support to BlackRock's portfolio management teams and client groups. We also own the day-to-day relationships with external service providers, such as banks and data/index suppliers, ensuring that we optimize BlackRock's relationships.

# Our team is known for:

- Providing data services and solutions to support the entire firm
- Improving the client service experience in partnership with client businesses
- Managing the firm's funds aligning to the Retail, Institutional and ETF client businesses
- Maintaining relationships with banks and market data/index providers
- · Providing scalable and custom reports to clients
- Effectively onboarding new portfolios by working across numerous BlackRock teams
- · Analyzing trends to improve service and client deliverables
- Understanding the flow of client, market, and fund information across BlackRock and external data providers
- Working alongside our systems engineers and UI developers to build the next generation of BlackRock's tools
- Proving out and productionalizing scalable infrastructure
- Developing tech solutions and providing tech expertise to address business & industry challenges

### **Our business contains two teams**

#### **Business Operations**

Provides support to investment and client businesses by operating across business management, client onboarding and implementation, and client experience management

#### **Technology Operations**

Supports technology businesses by working with cyber and information security, data science and AI, and technology enterprise services..

### We partner with:

- Internally: We work with Technology, Portfolio Managers, Legal & Compliance, Financial Planning & Analysis, Human Resources, and more.
- **Externally**: Our Client Experience teams work with clients for onboarding, contracting, etc. Our Business Operation teams work with funds, providers, banks, etc.

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# BlackRock.

# **Technology Operations**

# What will you do as an analyst?

- Gain exposure to multiple business areas and investment products across the firm
- Be challenged to think innovatively and creatively in order to solve complex business and operational issues
- Analyze trends in queries to improve client deliverables
- Evaluate systems, processes and procedures for inefficiencies and make recommendations for improvement
- Be part of and develop within a truly global and innovative group

### What capabilities are we looking for:

- Analytical approach
- Critical thinking
- Problem solving
- Project management
- Technical curiosity



# **Technology Support**

#### Positions are available in: Europe

Aladdin is relied upon by dozens of the world's largest organizations to manage their business around the world, 24/7, and no one knows Aladdin like us. The Technology Support business consists of system administrators, software developers, incident managers and project managers focused on maintaining the stability and efficiency of the Aladdin platform for BlackRock and our clients. We are a fast-paced team operating in a multifaceted environment, and we're constantly seeking new ways to improve our efficiencies, processes and automation.

# **Our business contains eight teams:**

#### **Production Operations**

Responsible for monitoring, supporting, and administering the interactive and batch systems which form the Aladdin platform, acting as a first responder for troubleshooting, problem resolution and critical issues. We also develop and support the tools used to manage and monitor the platform, along with third-party technologies such as Kafka, Zookeeper, Hadoop, Kubernetes and many more.

#### Database

Responsible for every aspect of database technology and strategy at BlackRock. This includes database platforms like SAP Sybase ASE/Repserver/IQ, Microsoft SQL Server, Apache Cassandra/Solr, Oracle and Pivotal Greenplum and utilizes Cloud platforms such as Microsoft Azure and Amazon Web Services (AWS). We also build automated solutions in Python, Java and Perl to manage, monitor and capture a variety of data points to facilitate decision making, trends and analysis

#### Web Operations

Responsible for monitoring, supporting and engineering BlackRock's web technology stack that services our Aladdin Platform and Aladdin Wealth Technology digital offerings. The team works with a breadth of technologies, including Apache/Nginx, Consul, API gateways, Akamai and Kubernetes in complex multi-tenant environments. The team also develops their own automated solutions in Python & Java to scale team operations, to facilitate failover procedures and to provide web monitoring and metrics reporting capabilities.

#### **Platform Client Engagement**

Provides a liaison between our Aladdin business and the Aladdin platform providing support for Aladdin client inquiries and initiatives, such as new environment builds, disaster recovery, business development support and management of projects for client technology requirements.

#### **Enterprise Systems**

Provides technology solutions for BlackRock's operations platform and to external client operational teams. The team is responsible for developing, implementing and supporting key Finance Operating systems globally. The remit extends to a wide variety of applications, with many different tech stacks across a wide range of in-house developed and externally hosted solutions.

#### Site Reliability Engineering

Works in partnership with our development and operations teams to continually improve Aladdin's resiliency, scalability and performance. The team's functions include software development, problem management, provision and implementation of inhouse and third-party telemetry solutions, quality assurance, testing and developer experience, including the firm's SDLC tooling.

#### **Command Centre Operations**

Responsible for BlackRock's Incident, Problem and Change Management processes. We bring the firm together to identify, communicate and resolve complex technology incidents for BlackRock and our external clients. We are passionate about improving the reliability, scalability and performance of Aladdin. Together, we help to deliver its evolution through our infrastructure and software release process. Our team also focuses on software development and automation projects, data analysis and disaster recovery testing.

#### **Platform Project Management**

Delivers and executes platform wide Aladdin initiatives through outcome-oriented project management. Our project managers work on some of the most complex, critical projects at the firm.



# **Technology Support**

# 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, snowstorms, hardware failure and software bugs all pose a real threat when there are trillions of dollars at stake.
- **Teamwork**: We work with all areas of the BlackRock business, from developers to relationship managers to ensure we continue to provide extraordinary service as we grow.
- More than just a team: It's easy to picture us as a community rather than just a department. When we're not solving some of the most complicated challenges in the FinTech sector, we're coordinating Hackathons, Team Charity Days, Tech Meetups, running groups, table tennis, chess or video game tournaments and much, much more.

### We partner with:

- **Internally**: We work with Software Engineering, Aladdin Client Services, Relationship Management & Infrastructure Engineering.
- Externally: We engage with external users of the Aladdin platform.

# What capabilities are we looking for?

- Critical thinking
- Decision making
- Multitasking
- Problem solving
- Technical curiosity
- Distilling large amounts of data

### Your learning & development will include:

- Contributing to an exciting, collaborative environment with tremendous learning and growth potential
- Participating in assignments across various technology teams
- Learning our business and our technology stack
- Participating in hands-on technical and business work using sophisticated technologies

