Pacific Analytics

Job Description

Position Title	Lead Software Engineer	Reporting To	Chief Technology Officer (CTO)
Date	14 March 2025	Direct Reports	Software Engineers

About Us

Pacific Analytics Consulting is a R&D software solutions provider based in Sydney, NSW with team members globally. Our solutions combine web platform design, federated big data analysis, large language models and predictive analytics with a microservice architecture, modern design and software engineering principles and cutting-edge technology to help our clients meet global scientific challenges at scale.

Our team consists of dedicated professionals from Academia and Industry and includes Fullstack Software Developers, Medical Scientists, Bioinformatics Engineers, Data Scientists and Machine Learning Engineers.

Position Purpose

As a Lead Software Engineer, you will be responsible for leading a dynamic team of developers to design, build, and optimise scalable software solutions in direct contact with our clients and the leadership team. You will play a key role in project management, architectural design, code review, and the mentorship of team members. Your leadership and technical skills will directly contribute to the development of our products while ensuring alignment with the company's technical vision and standards.

Key Responsibilities

- **Technical Leadership & Architecture:** Spearhead the development of scalable software solutions. Define and implement robust software architectures that incorporate the philosophy and principles of open science and, wherever possible, are built around open community standards, such as those set by the Global Alliance for Genomics and Health (GA4GH).

- **Development & Coding:** Hands-on development and review of critical system components. Establish coding standards and practices to enhance code quality and maintainability.
- **Team Management:** Lead and mentor a software developer and engineering team. Foster a collaborative environment and ensure alignment with project goals.
- **Stakeholder Engagement:** As the key technical liaison between internal teams, clients, and external partners. Ensure transparent communication about technical strategies, project progress, and challenges.
- **Innovation and Research:** Stay abreast of the latest developments in the technology sector, specifically within the open source and open science communities. Incorporate cutting-edge technologies, methodologies and standards to enhance project outcomes.
- **Quality Assurance:** Oversee the development, testing, delivery and release strategies and ensure software solutions meet strict quality standards. Devise strategies to eliminate existing and avoid future technical debt.
- **Documentation:** Maintain comprehensive documentation of system architectures, development processes, and user guides.
- **Open Philosophy:** Assist with designing and implementing open source-based and hybrid open and closed source business models ("as open as possible, as closed as necessary") and software release strategies, ensuring the company's profitability. Actively engage with the open source and engineering communities (e.g., FOSDEM, GSoC, GA4GH).

Key Competencies

- **Strong Technical Proficiency:** Advanced skills in software development and delivery, including familiarity with multiple programming languages and development environments, especially in relevant fields, such as platform design, cloud computing and modern DevOps techniques.
- **Problem-Solving:** Exceptional analytical and problem-solving abilities. Capable of addressing complex technical challenges with effective solutions.
- **Leadership:** Proven leadership skills with the ability to manage and inspire a remote team.
- **Communication:** Excellent communication skills, capable of effectively engaging with technical and non-technical stakeholders.
- **Flexibility:** Outstanding work ethics and balancing an emerging, ambitious, globally distributed company's benefits and challenges.
- **Experience with Open Source and an Understanding of Open Science:** Solid knowledge of open source licensing, open science principles, and global

standardisation frameworks such as GA4GH, IEEE, W3C is a plus.
- **Experience with Research Software Engineering:** Domain-specific knowledge in science and research, specifically within the life sciences, is a plus.

Preferred Qualifications and Experience

- Bachelor's or Master's in Computer Science, Software Engineering, or related field.
- Minimum 5 years of experience in software development, with at least 2 years in a leadership role. Experience with leading remote teams or team members is a plus.
- Strong background in developing software adhering to open source and open science frameworks, particularly familiarity with GA4GH standards is a plus.
- Demonstrated experience in leading complex software projects across diverse teams.
- Experience with cloud platforms (AWS, Azure, Google Cloud).
- Prior experience in developing scientific research solutions.
- Proficiency with DevOps technologies, such as Docker, Kubernetes, Terraform/OpenTofu and CI/CD pipelines.
- Knowledge of test-driven development (TDD) and software quality assurance principles.

How to Apply

If this role sounds like you, or someone you know, please get in touch for a confidential discussion.

Applications with a resume should be sent to arianne@pacificanalytics.com