



POSITION DESCRIPTION

Australian BioCommons

Faculty of Medicine, Dentistry and Health Sciences

Full Stack Developer, Australian BioCommons

POSITION NO	0064088
CLASSIFICATION	UOM 8
SALARY	\$119,742 - \$129,607 p.a.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full-time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed Term (Externally funded until June 2026)
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Brett Verity Tel: (03) 9035 7460 Email: brett.verity@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

Position Summary

Australian BioCommons is an ambitious digital infrastructure capability that is enhancing Australian research in its ability to understand the molecular basis of life across environmental, agricultural and biomedical science. Australian BioCommons is seeking a suitably qualified individual to fill the position of Full Stack Developer in the Australian Tree of Life (AToL) project.

The goal of AToL is to establish a continental-scale digital library of molecular data to support the discovery and study of Australian species across molecular to population scales. In this role, you will be the person responsible for building digital infrastructure that underpins the initiative, which bridges the gap between the generation of genomics data and its application in on-the-ground actions. Integrated with a comprehensive set of analysis services, this data infrastructure will support conservation, agriculture and biosecurity decision making.

You will design, develop, and maintain a web based portal, and integrate the portal with data sources, workflow engines and identity management platforms. You will be responsible for engineering the data movement between these systems, automating workflows, monitoring the system and presenting data and status back to end users in meaningful ways.

You will work closely on a daily basis with project leads including the product owner, data curator and business analyst. You will be embedded with the Biocloud team, which is an experienced team of DevOps engineers, UX and security specialists, as well as other frontend and fullstack developers working on a range of related platforms.

At BioCommons, you'll find more than a role – you'll discover a purpose. So, if you're passionate about leveraging technology to create significant, life-changing impacts, we'd love to hear from you.

1. *Key Responsibilities*

- ▶ Work in a highly collaborative team as the core AToL developer.
- ▶ Work independently and deliver tasks with minimal daily supervision.
- ▶ Work within an Agile framework to incrementally ideate the solution, develop and analyse user stories, and deliver the application in collaboration with the product owner and business analyst.
- ▶ Develop and deploy secure web applications by implementing best practices, preventing vulnerabilities, managing dependencies, and ensuring secure access and communication protocols.
- ▶ Develop and manage data pipelines within and across existing systems, and build infrastructure to monitor and interrogate the status of data movement into and throughout the AToL platform.
- ▶ Understand and apply UX best practices and a modern design language when developing front end systems.
- ▶ Design and develop REST APIs using standards such as OpenAPI.
- ▶ Ensure all code is automatically tested using a standard testing framework.
- ▶ Employ software lifecycle principles, including release management processes.
- ▶ Write technical documentation.
- ▶ Effectively work and collaborate with a national distributed team.
- ▶ Be directed to work on related projects within the broader BioCommons as other priorities arise.

2. *Selection Criteria*

2.1 ESSENTIAL

- ▶ A degree in a relevant discipline, such as software engineering, computer science, or bioinformatics, or extensive equivalent industry experience.
- ▶ At least two years of experience as a full stack developer or a similar role.
- ▶ Experience with CI / CD practices and principles – Ansible, CloudFormation, Jenkins, Octopus, and so on.
- ▶ A broad understanding of backend and frontend languages and frameworks and experience in at least one frontend framework such as Angular.
- ▶ An in depth understanding of at least one backend language/framework such as Python.
- ▶ Demonstrated ability to work in unfamiliar environments and code bases.
- ▶ Experience with agile software development and working within a collaborative team.
- ▶ Excellent verbal and written communication skills, necessary for documentation and demonstrating software to stakeholders and end users.

- ▶ Observing the Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5.

2.2 DESIRABLE

- ▶ Experience developing on cloud platforms such as AWS, GCP or Azure.
- ▶ Experience with data pipelines, data ingestion and migration
- ▶ Demonstrated experience and public contributions to existing open-source projects (or other equivalent projects)

2.3 OTHER JOB RELATED INFORMATION

- ▶ Occasional work out of ordinary hours, travel, etc.

3. Job Complexity, Skills, Knowledge

3.1 LEVEL OF SUPERVISION / INDEPENDENCE

The incumbent will work under broad supervision with a degree of autonomy. It is expected they will establish their own work plans and engage with the role in a collaborative and results-oriented manner, demonstrating a high level of initiative, technical expertise, leadership and insight.

This position will be located at Australian BioCommons, the University of Melbourne. It reports to the Technical Team Lead of the Biocloud and will work directly with the Australian Tree of Life project team.

3.2 PROBLEM SOLVING AND JUDGEMENT

The position requires technological leadership, technical skills, judgement and negotiation skills to achieve agreed objectives and obligations with a diverse set of project delivery partners and research stakeholders and institutions across Australia and abroad.

Technical, intellectual agility and personal sensitivity and clear decision-making ability to respond positively and innovatively to achieve project milestones and deliverables.

3.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

This position requires a significant level of professional and sector. It possesses a strong record of development of new ways of applying a specific body of knowledge, that may involve the integration of other specific bodies of knowledge into an existing project.

The ability to solve complex problems by applying judgement based on professional expertise and acquired knowledge.

The incumbent will be required to navigate a wide range of procedures, policies and synthesise technical, scientific information to identify specific solutions within various levels of complexity.

3.4 RESOURCE MANAGEMENT

Not Applicable.

3.5 BREADTH OF THE POSITION

This position will interface with key individuals and organisations in research infrastructure within Australia and internationally.

Occasional work out of ordinary hours to attend meetings with international collaborators.

Domestic and international travel for technical meetings and conferences

4. *Equal Opportunity, Diversity and Inclusion*

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

5. *Occupational Health and Safety (OHS)*

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

6. Other Information

6.1 AUSTRALIAN BIOCOMMONS

<https://www.biocommons.org.au/>

The University of Melbourne is host to the Australian BioCommons, a \$20M NCRIS-funded research infrastructure program for life science research (2023-2028). It is the mission of BioCommons to:

- ▶ Sustain strategic leadership in the provision and use of bioinformatics and bioscience data infrastructures at a national scale
- ▶ Actively support life science research communities with community scale digital infrastructure developed and maintained in concert with international peer infrastructures
- ▶ Provide access to platforms and services that:
- ▶ Provide sophisticated analysis capabilities, including software and hardware platforms that underpin world class science
- ▶ Support digital asset stewardship and management, retention, integration and publication solutions as they evolve
- ▶ Enable researchers to observe best-practice data standards, management, interoperability and publication approaches as they evolve
- ▶ Provide enduring access to digital techniques, data and tools that are needed by world-class environmental, agricultural and biomedical research
- ▶ Provide training and support solutions that enable the rapid and broad-based adoption of the above.

6.2 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

<https://mdhs.unimelb.edu.au/>

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is \$630m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention,

Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

6.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>

6.4 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- ▶ We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- ▶ We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
- ▶ We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- ▶ We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

6.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <https://about.unimelb.edu.au/strategy/governance>