



Job Description

Full-Stack Developer (Machine Learning)

| | |
|---------------------------|---------------------------------|
| Job Number | 2452 |
| Grade | ASC Grade 5 |
| Engagement type | Full-time, Fixed term |
| Location | Melbourne, VIC |
| Immediate manager | Research Engineering Lead |
| Branch | Machine Learning and Technology |
| Security Clearance | AGSVA - Baseline |
| Date of Effect | 24 July 2023 |

Sport has a place for everyone and delivers results that make Australia proud

The Australian Sports Commission (ASC) is the Australian Government agency responsible for supporting and investing in sport at all levels. Our role is to increase involvement in sport and enable continued international sporting success through leadership and development of a cohesive and effective sports sector, targeted financial support and the operation of the Australian Institute of Sport (AIS).

Sport drives all we do at the ASC, including our culture. We are committed to building a culture we can all be proud of, one that is based on our values of Respect, Integrity, Teamwork, and Excellence. From grassroots sport to elite international competition, we recognise the role sport can play in engaging every Australian. The actions we take to achieve our vision for reconciliation is outlined in our [Innovate Reconciliation Action Plan \(RAP\)](#).

The Role

Full-Stack Developer will support Research Engineering Lead to drive the cloud-based Pipelines project including machine learning, video analysis and data collection. The role will require software development skills and will build and implement systems to enhance advanced sports data collection systems and use this information to enhance outcomes across the High Performance Sport system.

In consultation with team managers, implement the organisational strategic agenda to achieve section and business outcomes. This includes:

1. Contribute code to front end web software in support of innovative computer vision and AI solutions to provide a competitive advantage in high performance sport.
2. Design, develop and implement highly optimised cloud based back end software for servicing the national sports network.
3. Identify and remedy problems, and implement new features, across the full stack of cloud hosted platform.
4. Write clear, maintainable and robust code.
5. Plan and work with engineering and machine learning teams to drive sound implementation strategies.
6. Commit and contribute to leading practices in software development/deployment such as scrum, agile, git, CI/CD, cloud VM/serverless or similar. Respect and Teamwork, and contribute to positive organisational change, effective communication, and continuous improvement at the ASC.
7. Work collaboratively as part of a high performing team/organisation, establishing and maintaining effective partnerships with key internal and/or external stakeholders to deliver high quality business outcomes.
8. Assist in the delivery of quality advice and reporting on relevant issues to senior management.

Key Capabilities

Essential:

- Tertiary degree in software development or equivalent experience.
- Demonstrated (4+ years) in software development with back end languages, preferably Python (experience with Django, Flask will be looked upon favourably).
- Demonstrated experience in database design, creating and consuming GraphQL, REST APIs.
- Demonstrated experience in user interface development using contemporary tools and methods, including React.js and Typescript.
- Experience working with Git in a team environment.
- Strong interpersonal, written, and verbal communication skills.
- A capability to work independently, collaborating where necessary with other engineers is essential.

Desirable Skills/Experience:

- Demonstrated experience of effective performance working in both autonomous and collaborative small team environments.
- Demonstrated experience in software deployment, CI/CD and DevOps – Docker, Terraform and Kubernetes experience would be advantageous.
- Familiarity with Python machine learning libraries (PyTorch, Numpy) for computer vision tasks

The Branch

The Machine Learning and Technology team requires strong technical capabilities to develop cutting edge cloud-based AI technology to support high performance sport, and to provide athletes, coaches and support personnel with customisable, decision support required to deliver medals at major international events. The innovation cycle for computer and data science is extremely short, and this area will operate at leading edge of technology and innovation to generate competitive advantage for Australian sport.

The Group

The Australian Sports Commission (ASC) plays a central leadership role in the development and operations of the Australian sport sector and acts as the leading sports agency in Australia, building collaboration, alignment and effectiveness within the Australian sport sector.

AIS Performance is responsible for leading and enabling a united high performance system that supports Australian athletes to achieve podium success.

Employment Requirements

- The successful candidate will be subject to a National Police Criminal History Check and an International Police Criminal History Check if they have resided overseas for a period of 12 months or more in the last 10 years.
- The ASC's Child Safe Commitment provides insight into how seriously the organisation takes its responsibility to provide an environment that is caring, nurturing and safe. It is an essential requirement that all ASC employees obtain and maintain an active clearance/s to work with children.
- This position requires/may require weekend work, or outside ordinary work hours.