Dublin City University
Software Architect
School of Health & Human Performance/ADAPT
Fixed-Term Contract up to 18 months

Dublin City University (www.dcu.ie) is a research-intensive, globally-engaged, dynamic institution that is distinguished both by the quality and impact of its graduates and by its focus on the translation of knowledge into societal and economic benefit. Through its mission to transform lives and societies through education, research and innovation, DCU acts as an agent of social, cultural and economic progress. DCU is Ireland’s fastest growing university, and now hosts more than 17,000 students across its three academic campuses: DCU Glasnevin Campus, DCU St Patrick’s Campus and DCU All Hallows campus.

The ADAPT Centre is Ireland’s global centre of excellence for digital content technology. It combines the expertise of researchers at four universities (including Dublin City University) with that of its industry partners to produce ground-breaking digital content innovations. ADAPT brings together more than 150 researchers who collectively have won more than €100m in funding and have a strong track record of transferring world-leading research and innovations to more than 140 companies. ADAPT partners are successfully advancing the frontiers of content analysis, machine translation, personalisation, e-learning/education, media technologies and spoken interaction, as well as driving global standards in content technologies. As part of the ADAPT Centre’s remit, it will also be responsible for the ADAPT research programme as ADAPT is an evolution of the ADAPT Centre.

MoveAhead Games Ltd (DCU Start-Up)
Modern children have become increasingly sedentary with online interactions and screen time replacing physical activity and movement-based ‘play’. The majority of modern children can no longer hop, skip, throw or even run properly. Our children also have significant issues with basic coordination skills (e.g. crossing the mid-line) indicating difficulties performing tasks that involve crossing the left and right side of the brain. The current movement ‘crisis’ has a significant impact on children’s health and cognitive outcomes.

MoveAhead Games brings together expertise in motor control, computer science and motion sensor technology to develop movement-based educational games and data collection activities to facilitate real change in movement behaviours. The project aims to support improvements in children’s movement skills through meaningful movement-based human-computer interactions.

We are currently looking for a software architect to help us develop our transformative games for movement and cognitive learning. The successful candidate will report to the Principal Investigator and work closely with the MoveAhead team comprising experts in Computer Science, Motor Control, Business, Education and Design.
Duties and Responsibilities:

- Design the system architecture for a software platform that interacts, handles and analyses motion detection information in a secure, robust, scalable and performant way in line with the project’s goals;
- Research and specify hardware requirements;
- Specify the API to interact with the aforementioned software platform;
- Define maintenance, test plans, backup procedures and monitor technical performance of the system and report on this;
- Make recommendations on improvement of the system, whilst maintaining its integrity;
- Inform software developers about the system and procedures and review their code base;
- Any other duties that may be assigned from time to time by the principal investigator or his/her nominee.

Candidate Requirements:

Essential:

- Candidate will hold a minimum of a Degree (NFQ Level 7) in Computer Science or similar field;
- A minimum of 2 years’ experience in the development and implementation of computer systems and networks as a System Architect;
- Solid understanding of programming (C++ or C#/ .NET) and coding for large scale cloud computing systems;
- Experience with and understanding of Machine Learning;
- Proven experience developing strategic system architecture plans;
- Strong analytical, conceptual and troubleshooting abilities;
- Strong team player;
- Good customer facing skills;
- Excellent written and verbal communication skills.

Desirable:

- PhD in Computer Science or similar field;
- Previous work experience in a similar role;
- Experience with Microsoft Azure;
- Experience handling motion sensors like (Azure) Kinect;
- Solid understanding of information processing fundamentals and best practices;
- Experience in Agile software development methodology;
- Experience identifying, analyzing and resolving system problems;
- Experience conducting technology, trends, standards and products research;
- Experience providing guidance to software developers;
- Professional accreditation in software development or project management methodologies.

Mandatory Training

The post holder will be required to undertake the following mandatory compliance training: GDPR and Compliance. Other training may need to be undertaken.