Post Title: Full Stack Developer  
Post Duration: 7 months (€48,626-60,814 per annum depending on experience)  
Salary Scale: Up to level 3 point 4 on the IUA SALARY SCALE  
Apply: https://forms.gle/JiARjYuRfdU2WPXU9

Why ADAPT?

- **Contribute** to the ADAPT research agenda that pioneers and combines research in AI driven technologies: Natural Language Processing, Video/Text/Image/Speech processing, digital engagement & HCI, semantic modeling, personalisation, privacy & data governance.
- **Work** with our interdisciplinary team of leading experts from the complementary fields of, Social Sciences, Communications, Commerce/Fintech, Ethics, Law, Health, Environment and Sustainability.
- **Leverage our success.** ADAPT’s researchers have signed 43 collaborative research projects, 52 licence agreements and oversee 16 active commercialisation funds and 52 commercialisation awards. ADAPT has won 40 competitive EU research projects and obtained €18.5 million in non-exchequer non-commercial funding. Additionally, six spinout companies have been formed. ADAPT’s researchers have produced over 1,500 journal and conference publications and nearly 100 PhD students have been trained.

As an ADAPT researcher you will have access to a network of 85 global experts and over 250 staff as well as a wide multi-disciplinary ecosystem across 8 leading Irish universities. We can influence and inform your work, share our networks and collaborate with you to increase your impact, and accelerate your career opportunities. Specifically, we offer:

- Exposure and free access within a multi-disciplinary ecosystem across 8 leading Irish universities
- Opportunity to build your profile at international conferences and global events
- Fast-track your career through formalised training & development, expert one-on-one supervision and exposure to top AI specialists

About the role
The Full Stack Developer role is to architect, develop and maintain the required software technology stack to deliver on the UniCook project. The main goal is to wrap up the different natural language processing entity recognition and language based relational groupings into a number of RestFUL webservice/APIs and allow them to be presented in different visual incarnations in a browser, tablet or on a mobile phone. In addition, the provisioning of user modelling and personalisation based on machine learning techniques is the second half of the task required to allow users to view and navigate through numerous recipes based on their user requirements.

The Full stack developer will have a deep understanding of cloud infrastructures, databases, API development, DevOps, Agile and test-driven development methodologies.

Context

The Full Stack Developer will provide a platform that connects the natural language processing, image processing and relational entity processing developed by the research engineer to the viewable interfaces produced by the front end engineer. You will work with the commercial lead, UX designer, front end developer and the principal investigator on the project to produce a working prototype of the UniCOOK product that will satisfy the requirements of the trial partners and define a base product that will eventually result in an incubation startup if successful.

The provisioning of different API views for dyslexic, non-readers, visually impaired, eco-friendly conscious and lifestyle is key to UniCOOK transitioning to being a successful startup company.

Minimum qualifications:
A suitable candidate will have a BSc in Data science or related computer science discipline and a minimum of 5 years research/industrial experience.

Main duties and responsibilities:

- **Research**
  - Assisting the PI, Commercial lead, Research Engineer, Front End developer and UX Designer in connecting the researched machine learning techniques to front end outputs
  - Architect, develop and maintain the required software technology stack to deliver on the UniCook project

- **Technical**
  - Wrap up the different natural language processing entity recognition and language based relational groupings into a number of RestFUL webservice/APIs
  - Provision user modelling and personalisation based on machine learning techniques to allow users to view and navigate through numerous recipes based on their user requirements.
○ Produce discoverable webservice in AWS for Python built NLP machine learning outputs.
○ Provide guidance to the UX designer on what can and cannot be done from a discovery point of view.
○ Develop as much SaaS and as many user account setups for the front-end engineer and UX designer as are required to present prototypes to the trial partners.
○ Maintain a software stack that will persist in and out of a cloud infrastructure.

Experience

● Minimum 5 years industrial experience (essential)
● Working on multiple projects (possibly at the same time) (essential)
● 3+ years experience working as a python developer (Django Stack) (essential)
● 2+ years experience building RestFUL web applications (essential)
● Experience using build tools (Docker and/or conda) (essential)
● Experience in managing Linux Services (essential)
● Experience in data cleaning and parsing, very important (desirable)

Skills

● Good understanding of database design and management
● Solid understanding of code versioning
● a deep understanding of cloud infrastructures, databases, API development, DevOps, Agile and test-driven development methodologies.
● Ability to work on own initiative and as part of a team
● Ability to speak in laypersons English on calls speaking to image database providers, publishers and grocery retailers in a way that makes the technology digestible
● Excellent communication and interpersonal skills both written and verbal
● Proven ability to prioritise workload and work to exacting deadlines
● Flexible and adaptable in responding to stakeholder needs
● Enthusiastic and structured approach to research and development
● Excellent problem-solving abilities
● Desire to learn about new products, technologies and keep abreast of new product technical and research developments

Benefits

● Competitive salary
● Flexible working arrangements
● Computer and peripherals of your choice
● A fast-paced environment with impactful work
● Pension

● Bike to Work Scheme
● Employee Assistance Programme
● Sports Facilities
● 22 days of Annual Leave
● Paid Sick Leave
Application Process
Please submit the following via the following online application: https://forms.gle/JiARjYuRfdU2WPXU9
- Cover Letter: Please address all skills that you have that match the required experience list above.
- Resume: Detailed curriculum vitae, including education, previous experience and previous project work.

Diversity
ADAPT is committed to achieving better diversity and gender representation at all levels of the organisation, across leadership, academic, operations, research staff and studentship levels. ADAPT is committed to the continued development of employment policies, procedures and practices that promote gender equality. On that basis we encourage and welcome talented people from all backgrounds to join ADAPT.

About the ADAPT Centre
ADAPT is the world-leading SFI research centre for AI Driven Digital Content Technology, coordinated by Trinity College Dublin and based within Dublin City University, University College Dublin, Technological University Dublin, Maynooth University, Munster Technological University, Athlone Institute of Technology, and the National University of Ireland Galway. ADAPT’s research vision is to pioneer new forms of proactive, scalable, and integrated AI-driven Digital Content Technology that empower individuals and society to engage in digital experiences with control, inclusion, and accountability with the long term goal of a balanced digital society by 2030. ADAPT is pioneering new Human Centric AI techniques and technologies including personalisation, natural language processing, data analytics, intelligent machine translation human-computer interaction, as well as setting the standards for data governance, privacy and ethics for digital content.

Our Research Vision
Governments and civil society are starting to recognise the need for urgent and concerted action to address the societal impact of the accelerating pace of digital content technologies and the AI techniques that underpin them. ADAPT provides an ambitious, ground-breaking, integrated research programme that assembles three interlocking Strands that together are capable of addressing this challenge. Each of these complementary and reinforcing research Strands takes one of the different perspectives on the provision of personalised, immersive, multimodal digital engagement, i.e. the individual’s experience and control of the engagement, the algorithms underlying digital content processing, and the balanced governance by enterprise and societal stakeholders.

Digitally Enhanced Engagement Strand
From the individual perspective, research within this Strand will deliver proactive agency techniques that sense, understand and proactively serve the needs of individual users to deliver relevant, contextualised and immersive multimodal experiences which also offer them meaningful control over the machine agency delivering those experiences.

**Digital Content Transformation Strand**
From the algorithmic perspective, new machine learning techniques will both enable more users to engage meaningfully with the increasing volumes of content globally in a more measurably effective manner, while ensuring the widest linguistic and cultural inclusion. It will enhance effective, robust integrated machine learning algorithms needed to provide multimodal content experiences with new levels of accuracy, multilingualism and explainability.

**Transparent Digital Governance Strand**
From the enterprise and societal perspective, new structured knowledge frameworks and associated practices for AI data governance will be required to balance the needs and values of individuals, organisations and society when it comes to rich digital experiences. This requires the advancement of research in the areas of data ethics, data quality, data protection, data value, data integration, and multi-stakeholder governance models.