**Post Title:** NLP & Data Research Engineer - DLAB

**Post Duration:** Full-time 24 month Specific Purpose Contract

**Salary Scale:** €45,942 - €55,811

(Salary is aligned to the SFI scales and commensurate with experience.)

**Location:** Trinity College Dublin

**Closing Date:** 28 May 2021

**Apply:** [https://apply.adaptcentre.ie/apply.php?jobID=RE_NLPD](https://apply.adaptcentre.ie/apply.php?jobID=RE_NLPD)

**Why ADAPT?**

- **Contribute** to the ADAPT research agenda that pioneers and combines research in AI driven technologies: Natural Language Processing, Text processing, semantic modeling.
- **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, the world-leading SFI Research Centre for AI Driven Digital Content Technology, brings leading academics, researchers and industry partners together to deliver excellent science, engage the public, develop novel solutions for business across all sectors and enhance Ireland’s international reputation. Hosted by Trinity College Dublin, ADAPT’s partner institutions include 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 researchers have signed 43 collaborative research projects, 62 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.

**About the Design & Innovation Lab (DLAB)**

While working in the DLAB the successful candidate will have exposure to all aspects of the project lifecycle from requirements analysis to design, code, test and face-to-face demonstrations with customers. Initially the candidate will be tasked with architecting and implementing a natural language pipeline related to multi-lingual disease surveillance on digital platforms.

This is an awesome opportunity for an early career research engineer who wants to fast track their progression through to specialist AI, Machine Learning and Natural Language Processing practice areas and domains.
The team consists of engineers and designers, project managers and system administrators. DLAB team members are empowered to work across all stages of the product development lifecycle and can be expected to propose architectural approaches, to engage actively in design workshops with industry partners and post-doctoral researchers and to demonstrate their work at professional and public events in addition to designing, writing and testing code.

The DLAB works closely with our post-doctoral researcher colleagues to design and execute applied research projects with our industry partners. Being a university based research centre ADAPT also strongly supports continuous professional development and education.

In DLAB you will develop as an engineer, technically and scientifically. In addition, your confidence, leadership skills and communication abilities will be greatly enhanced.

As an ADAPT research engineer 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

Minimum qualifications:

The candidate appointed to this role must have a primary degree in Computer Science or a related discipline (essential) and (preferably) a postgraduate qualification (which includes specialisation in one or more of NLP, Data Engineering, Machine Learning, AI, Deep Learning).

The successful candidate must be able to demonstrate knowledge of, and experience with, NLP, Data Engineering and Machine Learning.

Preferred qualifications:

The successful candidate will be expected to have:

- Excellent knowledge of one or more of: Java, C++, PHP, node.js, Matlab/Octave, R, Objective-C, C.
● Excellent knowledge of scripting languages: Python, Bash, Perl, JavaScript, d3.js.
● Experience working with UNIX, Linux, VMWare, OSX and Windows operating systems.
● Database management skills: MySQL, MongoDB, CouchDB, Neo4j, SQL.
● Experience with web crawling, data wrangling, data analysis.
● Excellent Understanding of Unit and Regression Testing Frameworks.
● Knowledge of web application security.
● EC2 expertise.
● Experience of front end frameworks such as Bootstrap and Angular.
● Knowledge of software development processes and tools including build systems, versioning systems such as Git, and ticket management systems such as JIRA.
● Excellent written and oral proficiency in English (essential).
● Enthusiastic and structured approach to research and development.
● Proven ability to prioritise workload and work to exacting deadlines.
● have understanding of and experience working in an Agile environment and working with Agile methodologies.
● Be a strong team player who is able to take responsibility to contribute to the overall success of the team.

Benefits

● Competitive salary
● Flexible working arrangements
● Computer and peripherals of your choice
● A fast-paced environment with impactful work
● Pension
● Day Nursery
● Travel Pass Scheme
● Bike to Work Scheme
● Employee Assistance Programme
● Sports Facilities
● Paid Sick Leave
● Training & Development
● Staff Discounts

Application Process

● Cover Letter (1 x A4 page) that specifically outline
  ○ Candidates experience and knowledge in Machine Learning, NLP, AI
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.