Job Description

Position / Job Title:	**Applied Scientist – AI & Optimisation (KTP Associate, Fixed-Term) (RED ID 14433)**
Location/Building:	**Nourish Care Systems Ltd Floor 3 Dean Park House 8-10 Dean Park Crescent Bournemouth, BH1 1HL**
Faculty/Professional Service:	**Faculty of Media, Science and Technology**
Group/Section:	**School of Computing & Engineering,**
Duration if Temporary:	**Fixed-Term for 26 months**
Normal Hours per Week:	**37.5**
(Some flexibility will be required in order to ensure that key time scales and deadlines are met).	
Accountable to:	**Professor of Machine Learning and AI**

Job Purpose

We are seeking an Applied Scientist to lead research and development at the intersection of AI, data science, and optimisation.

You will design, implement, and evaluate scalable AI and optimisation solutions that tackle complex, data-driven decision-making problems. This role is ideal for someone who thrives on translating theory into practice, combining scientific curiosity with an engineer's mindset.

This is an excellent opportunity to join a talented team in a challenging commercial environment to innovate and build digital products that make a difference to people every day. Whilst you will be employed by Bournemouth University, you will be embedded on a full-time secondment within Nourish Care – a market-leading digital health and care management software platform provider – offering you a unique opportunity to conduct research that directly shapes commercial outcomes.

To assist your professional development, you will get access to one of the UK's top leadership and management training programmes at Ashorn Hill - a renowned institution used by global corporations to develop their future business leaders. You will be supported in your role by a highly experienced research team at Bournemouth University, Professor Marcin Budka and Dr Festus Adedoyin, both of whom have a strong a track record for working alongside industry on similar projects. Senior personnel at Nourish Care, including their Director of Data & AI, will also provide line-management for you alongside the research team at the University.

Main Responsibilities

Research & Development

- Lead applied research in AI, data science, and optimisation, focusing on high-impact, real-world challenges.
- Explore and test novel methodologies across areas such as predictive modelling, scenario analysis, and resource optimisation
- Publish findings in high-quality journals and conferences while ensuring applicability to commercial settings.

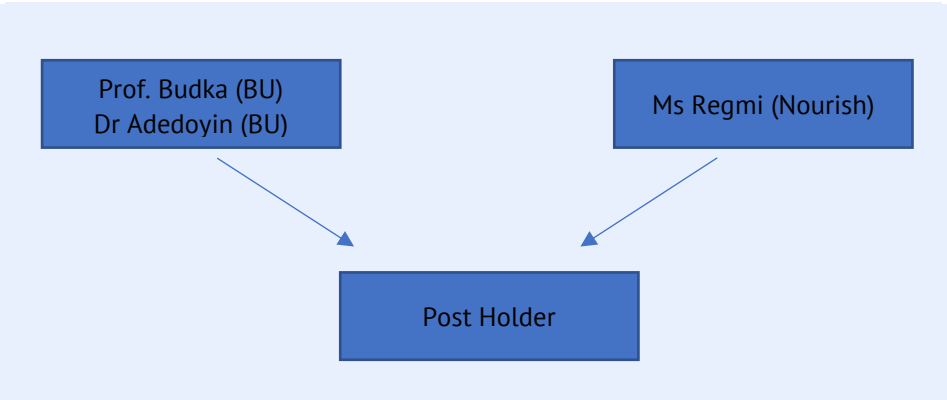
Implementation & Deployment

- Develop, evaluate and implement scalable models (AI/ML and optimisation) using best-in-class frameworks, both commercial and open-source.
- Integrate models into production pipelines, ensuring robustness, reproducibility, and performance at scale.
- Work collaboratively with data engineers and software developers to deploy models in cloud environments.
- Establish robust validation, benchmarking, and monitoring frameworks for deployed systems.

Collaboration & Knowledge Transfer

- Manage the project and update stakeholders on the progress and status of deliverables and milestones.
- Act as a bridge between academic research and commercial applications, translating complex research into operational tools.
- Work closely with product, data, and business teams to identify opportunities for optimisation and intelligent automation.
- Contribute to the design of experiments and case studies that inform both academic publication and business impact.

Organisation Chart



Dimensions

Funder: Innovate UK
Partner: Nourish Care Systems
Value: ~£232,000
Outputs: as defined in the workplan

Contacts

Internal:
Prof. Marcin Budka (Knowledge Base Supervisor), Dr Festus Adedoyin (Knowledge Base Supervisor), Prof. Nan Jiang (Knowledge Base Lead)

External:
Ms Sudha Regmi (Company Supervisor)

Challenges

This position is critical to the development of the KTP project outputs. The highly technical nature of the role is likely to attract candidates with strong academic background but with limited commercial exposure and experience. Therefore, the post will support the rapid development of business acumen, through the realistic timeframe and extensive onboarding afforded by KTP funding. The commercial realism and skills to work in a rapidly developing and agile environment will enhance the employability, skills and working ethos of the successful candidate. Converting academic theory into practice, undertaking extensive applied research and developing their skills to communicate with a wide range of stakeholders will all be part of a sharp, but scaffolded, learning curve.

Information Governance Responsibilities

Data User

i. Comply with the associated data protection, information security, information management and information technology regulations, policies, processes and procedures.

Safeguarding and Regulated Activity

If the role involves engaging in regulated activity relevant to vulnerable groups including children and disabled adults, it is an offence to apply for and perform the role, if a person is barred from engaging in regulated activity. Further information is available in BU's Safeguarding Policy and Suitability Statement on the Recruitment and Employment of Ex-offenders.

Additional Information

NB:
The purpose of the job description is to indicate the general level of responsibility and location of the position. The duties may vary from time to time without changing their general character or level of responsibility.

BU is an equal opportunities employer which values a diverse workforce. The post holder must at all times carry out their responsibilities with due regard to the University's Dignity, Diversity and Equality Policy Statement.

Our highly skilled and creative workforce is comprised of individuals drawn from a broad cross section of the globe, and who reflect a variety of backgrounds, talents, perspectives and experiences to build our global learning community. Through fused activity, the post holder must have an understanding of and commitment to promoting a global outlook.

All employees have an obligation to be aware of the University's Sustainability Policy, Climate and Ecological Crisis Action Plan, Travel Plan and associated documents, and to ensure that they carry out their day-to-day activities in an environmentally responsible manner and inspire students to do the same.

October 2025

Person Specification

Position / Job Title: Applied Scientist – AI & Optimisation (KTP Associate, Fixed-Term) (RED ID 14433)

Faculty / Service: Faculty of Media, Science and Technology Date: October 2025

SELECTION CRITERIA	**E**ssential / **D**esirable
Knowledge (including experience & qualifications)	
PhD (or near completion) in relevant discipline or substantive professional experience	E
Strong understanding of the end-to-end cycle in development of AI algorithms and productionising them, including MLOps and LLMOps principles	E
Experience in Python programming and familiarity with common ML and optimisation libraries (e.g., scikit-learn, PyTorch, Pyomo, OR-Tools)	E
Proven ability to work with large, complex datasets to design and test analytical or optimisation-based solutions	E
Demonstrated capacity to deliver research that leads to real-world implementation or measurable business impact	E
Experience with optimisation techniques (mathematical programming, heuristics, or metaheuristics)	D
Familiarity with scenario modelling, simulation, or uncertainty quantification	D
Knowledge of cloud computing and containerisation (e.g., AWS, Docker)	D
Knowledge of SDLC and experience delivering solutions in an Agile environment	D
Evidence of publications or applied research in artificial intelligence, particularly focussed on machine learning and/or optimisation	E
Skills	
Excellent communication skills, both orally and in writing, and the ability to communicate research findings to different audiences.	E
Strong organisational skills	E
Strong writing abilities	E
Effective team working skills	E
Ability to reason accurately and quickly and handle complex situations.	E
Attributes	
Strong analytical mindset with the ability to simplify complex systems	E
Excellent communication skills to engage with both technical and non-technical stakeholders	E
A collaborative approach — capable of navigating academic and commercial environments seamlessly	E
Curiosity-driven but results-oriented — passionate about making research real	E