UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Intelligent Distributed Systems Engineering, Faculty of Engineering and Physical Sciences



Salary: Grade 7 (£34,304 - £40,927 p.a.)

Reference: EPSCP1067

Closing date: Sunday 24 October 2021

Fixed-term for 1 year

We will consider job share and flexible working arrangements

Research Fellow in Intelligent Distributed Systems Engineering,
School of Computing.

Are you excited to build smart distributed systems for a more sustainable society? Do you want to further your career in one of the UK's leading Universities?

The School of Computing has an ambitious research and education programme that is delivering world-class graduates and strengthening the School's internationally leading research base.

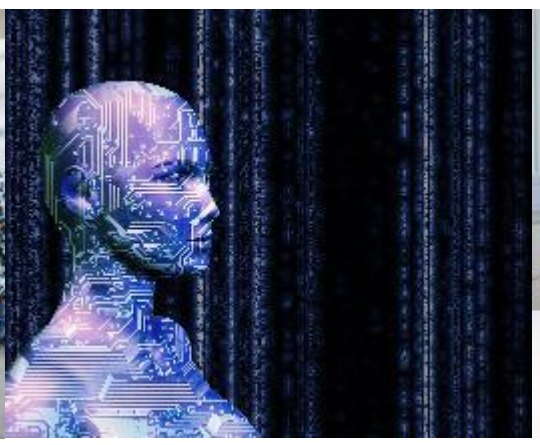
The Distributed Systems and Services group at University of Leeds has an opening for a Research Fellow (Postdoc-level) in the lab of Distributed and Intelligent Social Computing Systems. You will run lab research activities and will have a unique opportunity to develop and study cutting-edge AI and pervasive distributed systems applied to Smart City applications such as energy/traffic management, sharing economies, digital democracy and other. The scientific activities of the lab are inter-disciplinary, international and linked to government and industry.

You will have a strong research profile with a PhD or as an alternative, a strong software engineering profile with a BSc/MSc degree in Computer Science, Electrical Engineering or other relevant area. In both cases, you will bring solid knowledge on distributed systems and evident experience in system prototyping and engineering principles.

What does the role entail?

As a Research Fellow, your main duties will include:

- Conducting systems research by developing, deploying, testing and administrating large-scale distributed systems such as DIAS, EPOS and Smart Agora;
- Conducting indoor and outdoor field test experiments with pervasive networked devices such as smart phones;
- Collecting, pre-processing, storing, backing up, retrieving, analysing and visualising data;


- Writing and documenting open-source code;
- Increasing the outreach and impact of research via, for instance, adding research material to websites, publishing open-data/source code, preparing videos, visualizations, among others;
- Supporting lab activities in teaching such as creating educational material, preparing and running tutorials;
- Safeguarding system components by identifying and solving potential and actual security threats, ensuring the compliance with IT standards and privacy regulations;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Preparing demonstrators for showcasing and hackathon concepts;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Research Fellow, you will have:

- A PhD degree or, as an alternative, a strong software engineering profile with a BSc/MSc degree in Computer Science, Electrical Engineering or other relevant area;
- Evidence of deep knowledge on distributed systems principles as well as applied knowledge on distributed networked systems;
- A research or software engineering profile in one or more of the following areas: distributed ledgers (blockchain), edge/fog computing, Internet of Things, pervasive/ubiquitous computing, multi-agent optimization and learning;
- A strong publication record or evidence of software engineering skills that can be used for generating publishable research;
- Solid and evident programming/debugging experience with distributed systems: e.g. Sockets, ZeroMQ, Java multi-threading, Java profiling,





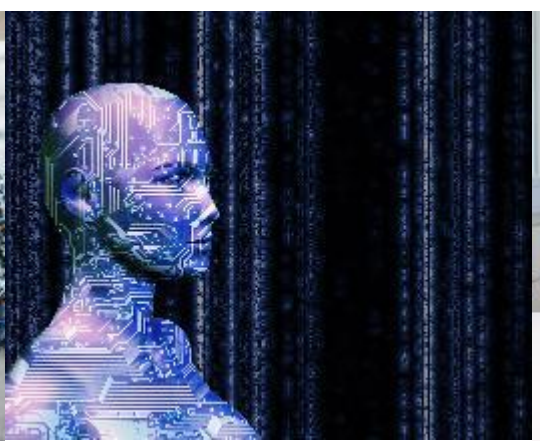
synchronization in the context of mobile/sensor networks, distributed ledgers, P2P networks, cloud, etc. and excellent Unix skills: Bash+Linux, scripting, remote deployments;
- Skilled in collecting, manipulating and processing (sensor) data, including experience with database systems: SQL/NOSQL, database setup, database tuning;
- Experience with Github and the Git version control system including writing open-source code;
- Experience with the LaTeX typesetting system (or a clear desire to work on it throughout this post);
- Experience or affinity in working to a scientific inter-disciplinary context;
- Interest in value-oriented systems design: privacy, human autonomy, fairness by design;
- Strong written and verbal communication skills and a collaborative approach in producing research results and software code;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support.

You may also have:

- Experience with one or more of the following: blockchain and smart contract development, mobile app development and/or IoT: e.g. Android, iOS, Arduino, Raspberry Pi;
- Experience with front-end development frameworks, Wordpress, JavaScript frameworks and web languages (HTML, JavaScript, CSS, SASS/LESS, XML, JSON, JQuery and Ajax);
- Experience with virtualization solutions;
- Background and understanding of AI and machine learning;
- Experience in participating and/or organizing hackathons;
- Experience in industry or enterprise systems.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.


Contact information

To explore the post further or for any queries you may have, please contact:

Dr Evangelos Pournaras, Associate Professor
Tel: + 44 (0) 113 343 5447
Email: E.Pournaras@leeds.ac.uk

Additional information

Faculty and School Information
Further information is available on the research and teaching activities of the Faculty of Engineering & Physical Sciences, and the School of Computing.

A diverse workforce
The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN Bronze or Silver Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our equality and inclusion webpage provides more information.

Working at Leeds
Find out more about the benefits of working at the University and what it is like to live and work in the Leeds area on our Working at Leeds information page.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.





Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.



