UCL CENTRE FOR ADVANCED SPATIAL ANALYSIS

Job Title:	**Research Assistant –National e-Infrastructure for Social Simulation Project**
Reference No:	**CASA/09/06/JISC**
Department:	**UCL Centre for Advanced Spatial Analysis**
Reports to:	**Dr Andrew Hudson-Smith**
Grade:	**6, spine point 26: Starting salary of £26,391 per annum plus London Allowance of £2,781**
Funding duration:	**18 months**
Closing date:	**Tuesday 7th July 2009**
Interviews:	**w/c 27th July 2009 TBC**

The National e-Infrastructure for Social Simulation Project

The JISC funded NeISS project is led by the University of Leeds and UCL is one of the project partners along with the University of Manchester, the University of Southampton and the Daresbury Laboratory. The Centre for Advanced Spatial Analysis is responsible for delivering work package 1.3 concerned with Visualisation.

The focus in this work package will be on the extension of Web 2.0-based mapping tools developed by the ESRC National Centre for e-Social Science GeoVUE/GENeSIS projects for collection and visualisation of data. It will integrate social network technologies and virtual environments to promote uptake of social simulation by professional and lay users. Integration of a social network structure will allow varying levels of data access according to role and need.

About the role

This position is funded for 18 months, and it is anticipated that the successful candidate will primarily be involved with programming the various technologies to achieve the aims of the project. The roleholder will work alongside Richard Milton who has developed various software under GENeSIS and GeoVUE (such as MapTube, GMapCreator and ImageCutter), Richard Milton will be involved in the day to day supervision of the appointed person whilst line management responsibility will rest with Andrew Hudson-Smith.

How to Apply

To be considered for this position, please submit the following documents by the closing date:
1. a letter of application outlining your suitability to this post and your reasons for applying.
2. a CV listing education history (institution name, start and end dates of courses, qualification gained), details of membership of any professional organisations, details of current or most recent employer (name and address of current organisation, job title, salary and duties), details of previous employment and how your knowledge, skills, and abilities meet the job requirements, plus the names and addresses of two referees one of whom should be your most recent employer.
3. if relevant and possible, a sample of your work, in the form of papers, or related material which indicates your expertise and previous projects
4. In addition, UCL requires applicants applying with a CV to provide standardised monitoring information; please complete and return the last 3 pages of this document.

Please email applications to **s.curtis@ucl.ac.uk** clearly stating the post reference number in the subject line.

About CASA

The Centre for Advanced Spatial Analysis (CASA) is an initiative within University College London to develop emerging computer technologies in several disciplines which deal with geography, space, location, and the built environment. As an interdisciplinary research centre expertise is drawn from archaeology, architecture, cartography, computer science, environmental science, geography, planning, remote sensing, geomatic engineering, and transport studies. This generates a unique blend of personnel who operate from CASA and associated departments within UCL. CASA is a department within the Faculty of the Built Environment.

For more information about CASA, please visit **http://www.casa.ucl.ac.uk**

Salary
The post is graded as Grade 6, the salary for which ranges from £22,765 to £27,183 (excluding London Allowance of £2,781) depending on experience. Progression through the salary scale is incremental. Cost of living pay awards are negotiated nationally and are normally effective from 1 st August each year.

Probation
Appointments are subject to receipt of satisfactory references and a probationary period of 6 months.

Hours of work
This position is office-based and full time hours for research staff average 36½ hours per week.

Holidays
Annual leave is 27 working days per annum (pro-rata) for a full time member of staff.
UCL also closes for a period at Christmas and Easter, at which times staff benefit from a total of 6 'closure days' in addition to Bank Holidays.

Pension
The postholder will be eligible to join the Superannuation Arrangements of the University of London, which is a final salary scheme with a current employee contribution rate of 6% and an employer contribution rate of 13% of salary.

Season ticket loans
A season ticket loan is available to staff who have successfully completed their probationary period with the facility to repay through a monthly deduction from salary.

Other benefits

Other benefits of joining UCL as a staff member are many and include:

- Access to an extensive range of in-house staff development opportunities. Staff have full use of the UCL libraries and UCL operates a Study Assistance Scheme for those undertaking part-time work-related study.

- An excellent location for transport networks being near Euston, Kings Cross and St. Pancras stations and a choice of underground stations connected to London's other mainline stations. A wide range of bus routes serves the area.

- UCL lies in Bloomsbury, just north of Oxford Street, Covent Garden and the heart of the West End with access to shops, theatres, cinemas, bars and restaurants. UCL also has its own 550 seat West End arts venue (Bloomsbury Theatre) which hosts drama, dance, music, debates and lectures during the year

- The main campus has subsidised cafeterias/bars and shops, gym, hairdresser and a travel agent. UCL staff can also benefit from corporate membership at a Tottenham Court Road gym.

Research Assistant – The National e-Infrastructure for Social Simulation Project
(Ref CASA/09/06/JISC)

Job description

Project Deliverables

1. Integrate census data: provide a quick and easy route to these datasets via geographical selection and visualisation linked to direct download for both inexperienced and experienced users.

2. Extended visualisation capabilities: to encourage the 'crowd sourcing' of data and model outputs for validation, input and analysis. Both traditional and non-traditional media outlets will be used, building on current work with the BBC for real-time geographic surveys.

3. Specific visualisation modules development: addressing the varying needs of each modelling environment, for example, for micro-simulation in the dynamic simulation of demographic change, for assessing the impact of new retail development and transitions in the urban and regional system, and so on.

4. Social networking tools: the social curation toolset created by myExperiment (www.myexperiment.org) will provide a framework for enabling social scientists to explore models collaboratively, and share simulation resources and expertise. The development of social networking tools, combined with visualisation would be a notable step forward for the modelling community in that it would enable researchers to add real content to the context if not the form of the models themselves as well as providing a key environment for interaction and collective discussion.

Generic Duties

5. To help prepare progress reports with the PI and Co-Is on research for funding bodies as required.

6. To contribute to the drafting and submitting of papers to appropriate peer reviewed journals.

7. To comply with the appropriate confidentiality terms regarding the disclosure of project results to third parties.

8. To participate in NeISS meetings and fulfil the project's reporting requirements, which may involve UK travel and overnight stays.

9. To prepare and present findings of research activity to colleagues and at scientific meetings.

10. To contribute to the overall activities of the research team/project collaborators and department as required.

11. To contribute to the induction and direction of other research staff and students if so requested by the Principal Investigator.

12. To carry out any other duties as are within the scope, spirit and purpose of the job as requested by the Principal Investigator.

13. At all times to follow Departmental and UCL policies including Equal Opportunities, Race Equality, Fire, Security and Health and Safety etc.

Person specification

TECHNICAL SKILLS	Essential	Desirable
1. An understanding of geospatial data and map projections.	✓	
2. Ability to build complex geospatial web 2.0 applications from scratch	✓	
3. Substantial knowledge & programming experience in the following programming languages:		
Microsoft		
• C# .Net	✓	
• Windows Forms or Windows Presentation Foundation, xaml, Visual Studio 2008		✓
Server Technologies		
• ASP .Net & IIS	✓	
• Apache, Tomcat		✓
Client Side Web Applications		
• Javascript, HTML	✓	
• XML, XSLT, XPath, Rich Internet Applications, Web 2.0		✓
Adobe		
• Adobe Flex Builder, Flash, Air, Dreamweaver, CS3		✓
Databases		
• SQL Server 2008 or Oracle Spatial or PostGIS	✓	
• SQL 92	✓	
• OpenGIS "Simple Features Specification for SQL"		✓
GIS		
• Geographical Information Systems e.g. ArcGIS, MapInfo		✓
Web Mapping		
• Google Maps API or Microsoft Virtual Earth SDK or OpenLayers API	✓	
• Google Earth, KML, GML, OpenStreetMap, Open Geospatial Consortium Styled Layer Descriptor (SLD) and Symbology Encoding (SE)		✓
Graphics		
• DirectX, OpenGL, Computer Graphics algorithms, Data Visualisation		✓
Revision Control Systems		
• Any revision control system e.g. Subversion, CVS, RCS, Monotone, Mercurial, Git		✓
Java Technology		
• Java 1.6	✓	
• Servlets and Portlets (JSR168 and JSR286)		✓
• NetBeans 6.5		✓
GENERIC SKILLS		
4. A reliable, motivated and organised person, able to manage a varied workload whilst still being able to meet strict deadlines and displaying evidence of the ability to complete tasks and projects to a high standard with a minimum of supervision.	✓	
5. A mature and confident disposition with the ability to present complex topics to a variety of audiences, and to produce and deliver dynamic presentations with ease and speed.		✓
6. Excellent written and verbal communication skills are essential to this post, as is the ability to work productively as part of a team and to produce high-quality documents, reports and publications.		✓
7. A positive and flexible attitude with a willingness to take on new areas of application and to contribute on an equal footing to the development of the research	✓	

APPENDIX I: Information to be provided by CV applicants

To be completed by all those submitting a CV in application for a post with University College London. Our equal opportunities policy includes the provision that in recruitment, the only consideration must be that the individual meets or is likely to meet the genuine requirements of the job. No one will be discriminated against on the basis of sex, age, race, colour, ethnic origin, physical disability, marital status, sexual orientation, caring or parental responsibilities, or belief on any matters including religion and politics.

Please complete this form in black ink/biro or by typing or an audio cassette.

Application for the Position of: **Research Assistant – NeISS project** Ref No or Job Code: **Ref CASA/09/06/JISC**	Department: **CASA**

Surname:	First Name: Preferred Forename (if different):	Title:
Address:	Contact details: **work:** **home:** **email:**	

Are you 64 or over? It is UCL policy that staff normally retire on the 31st July following their 65th birthday. In line with this UCL will not normally employ someone who is within six months of that date. (see http://www.ucl.ac.uk/hr/docs/retirement.php for more information)	Yes/No
Do you require permission / a Certificate of Sponsorship to take up employment in the UK? (Immigration Asylum and Nationality Act 2006 and UK Border Agency Immigration rules – see Border Agency website http://www.ukba.homeoffice.gov.uk/workingintheuk/tier2/	Yes/No
Do you need to register under the Home Office EU Accession State Worker Registration Scheme? (See http://www.ukba.homeoffice.gov.uk/workingintheuk/eea/wrs/ for more information) Are you a Bulgarian or Romanian National? (See http://www.ukba.homeoffice.gov.uk/workingintheuk/eea/bulgariaromania/ for more information)	Yes/No
Have you any unspent criminal convictions in line with the Rehabilitation of Offenders Act 1974? If so, please specify below or on a separate sheet. Appointment to certain posts, as stated in the advertisement and job pack, is subject to a criminal record check. By signing the Declaration you accept that the organisation will seek information from the Criminal Records Bureau and any associated special lists, where we have stated it is necessary to do so.	Yes/No
Do you have a Personal Relationship with any member of staff or student at UCL? If so, please give details: See http://www.ucl.ac.uk/hr/docs/personal_relationships.php for more details	Yes/No
If employed, how many days sick leave have you had in the last 24 months?	
Where did you see this vacancy advertised?	
Current or former UCL staff/students please enter your UPI number if known:	

To the best of my knowledge the answers given to the questions contained in this application and all statements made are true and accurate. Any falsification may be considered sufficient cause for rejection or, if employed, dismissal.

Signature of Applicant...Date..............

REHABILITATION OF OFFENDERS ACT 1974

The Rehabilitation of Offenders Act 1974 is intended to ensure that a person convicted of a criminal offence (whether in Great Britain or abroad), not involving a sentence of more than 2.5 years' imprisonment who has not since re-offended for a specified period of time (a rehabilitation period) related to the severity of their sentence is treated as if the offence, conviction and sentence had never occurred.

Sentences of more than 2.5 years put an individual concerned outside the scope of the Act. Such convictions can never therefore become spent.

(Exceptions) (Amendment) order 1986

Exempted professions NOT covered by The Rehabilitation of Offenders Act 1974 are:-

- Medical practitioner

- Barrister (in England and Wales), advocate (in Scotland), solicitor;

- Chartered accountant, certified accountant;

- Dentist, dental hygienist, dental auxiliary;

- Veterinary surgeon;

- Nurse, midwife;

- Ophthalmic optician, dispensing optician;

- Pharmaceutical chemist;

- Registered teacher (in Scotland);

- Any profession to which the Professions Supplementary to Medicine Act 1960 applies and which is undertaken following registration under the Act

Applicant Nº: _____

CONFIDENTIAL
EQUAL OPPORTUNITIES CLASSIFICATION FORM

University College London has a commitment to ensuring that staff are appointed, and promoted on the basis of merit, regardless of ethnic origin, sex or disability, sexual orientation, race, colour, nationality (within current legislation), marital status, caring or parental responsibilities, age, or beliefs on matters such as religion and politics.

Monitoring enables us to see what is happening in practice, to assess the impact of our equal opportunities policy and its implementation, to set any targets for improvements, and measure progress. To enable us to do this, and to make the exercise successful, we rely on the following details.

On receipt, this form will be separated from your application form/CV. The information provided will be treated in the strictest confidence and will only be used for the purposes of monitoring. **Thank you for your co-operation.**

Name	Job Title/Ref. Nº Ref CASA/09/06/JISC

Please complete all 5 sections:

1. Ethnic Group

A White

☐ British

☐ Irish

☐ Any other White background

B Mixed Race

☐ White and Black Caribbean

☐ White and Black African

☐ White and Asian

☐ Any other Mixed Race background

C Asian or Asian British

☐ Indian

☐ Pakistani

☐ Bangladeshi

☐ Any other Asian background

D Black or Black British

☐ Caribbean

☐ African

☐ Any other Black background

E Chinese

☐ Chinese

F Other Ethnic Group

☐ Any other background

2. Sex

☐ Male   ☐ Female

3. Nationality

[_____]

4. Are you disabled or do you have an impairment or medical condition?

☐ Yes

☐ No

(Examples of a 'condition' may include impairment of senses, co-ordination, memory, mobility, learning, health or well being)

5. Date of birth [_____]