Department	School of Computing
Supervisors	Peter Chapman
Project Title	Interactive Euler Diagrams

PROJECT DESCRIPTION

Euler Diagrams are known to be an effective method of representing set-based data, and can be applied to different fields, including ontology development. Drawing effective Euler diagrams is difficult, but the lack of interactivity in online tools hinders adoption of diagrams even more. In this project, adding interactivity to different Euler diagram variants will be investigated and evaluated, with open source tools that can be widely adopted seen as a key output. Examples of interactivity could be those which do not change the meaning of the diagram, such as re-arranging curves, to those which fundamentally alter the diagram, such as adding or deleting curves.

Prospective applicants are encouraged to contact the Supervisor before submitting their applications. Applications should make it clear the project you are applying for and the name of the supervisor(s).

Academic qualifications

A first degree (at least a 2.1) ideally in Computer Science or a closely related discipline, with a good fundamental knowledge of programming, set theory and basic statistical methods.

English language requirement

IELTS score must be at least 6.5 (with not less than 6.0 in each of the four components). Other, equivalent qualifications will be accepted. Full details of the University's policy are available online.

Essential attributes:

- Experience of fundamental computer science, with strong programming skills.
- Competent in set theory, logic and discrete mathematics.
- Knowledge of statistical methods.
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Desirable attributes:

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Indicative Bibliography	*Visualization Analysis and Design*. T. Munzner, CRC Press, 2014 *Experiemental Human Computer Interaction: A Practical Guide with Visual Examples*. H. Purchase, CUP, 2012 *Fluid Interaction for information visualization.* Elmqvist *et. al.*, Information Visualisation 10(4), 2011. *Visualizing sets: An Empirical Comparison of Diagram Types*. Chapman *et. al.*, Diagrams 2014, Springer, 2014.
Enquiries	For informal enquiries about this PhD project, please contact **Peter Chapman (p.chapman@napier.ac.uk)**
Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process