



**Making the  
Most of Masters**  
Work based projects

## Developing Software Security Industry Tools

**“Graphic Visualisation of the weakest link attack surfaces of a given online individual or enterprise ecosystem”**

The aim of the project was to produce a tool that provides an interface for end-users to calculate their digital footprint and produce a graph that visually dictates the paths of least resistance within their user network that would be used for maximum exploitation in the case of a worst case scenario exposure. The student was given full reign over the direction of the project while the project supervisor at Abertay advised on the scope of the project and offered assistance with academic matters. The company, Cigital, were also available to offer both general and sometimes more specific advice regarding technological or mathematical matters.

### PROJECT SUPERVISOR

DR NATALIE COULL - SCHOOL OF ARTS, MEDIA & COMPUTER GAMES, ABERTAY UNIVERSITY

*“I really enjoy supervising students who are working on industry based projects. It’s great to see the students growing in confidence as they realise through the project how the skills they’ve learned at university can be relevant in an industrial context, and get an insight into the issues that companies are trying to tackle in the field of ethical hacking. From my own perspective, it’s also invaluable to work (albeit virtually) along side a company to supervise a student and gain a better understanding of the company profile and their goals. I can use this to inform my own teaching and research.”*

*I really enjoy supervising students who are working on industry based projects.*

### STUDENT FEEDBACK

SAMANTHA BEAUMONT - ABERTAY UNIVERSITY

*“Having a sponsor who suggested a topic of real relevance to current industry is extremely beneficial to me as a student just entering this field, as I have more of a realistic perspective regarding research topics and responsibilities demanded from an individual entering an unknown space within the community.”*

### EMPLOYER INFORMATION

CIGITAL - CYBER SECURITY COMPANY

*“Cigital takes a holistic approach to designing, building and maintaining secure software—a concept we call ‘Building Security In.’ To accomplish this, Cigital offers a comprehensive portfolio of solutions delivered through managed services, professional services, and products. These solutions range from end-to-end application security programs to threat modeling to training.*

*We believe that finding bugs is only a part of the application security process. We place the emphasis where it belongs: collaborating with our clients to fix their vulnerabilities and prevent security issues before they occur. Cigital has the people, processes, policies and tools to make any security journey a success”*

