

Colin C. Ife

Ph.D, MRes, MA, MEng, BA (Hons.)

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ABOUT

I am a seasoned data scientist, security researcher, and developer with a strong foundation in the fields of cybersecurity, Big Data, and artificial intelligence (AI). I currently lead a dynamic Data Intelligence Team specialising in data, AI, and threat intelligence. With over 8 years of experience, I have established expertise in data-driven research, analysis, modelling, and visualization of security threats, as evidenced by my contributions to peer-reviewed publications.

My career journey has been marked by continuous growth and evolution. Leading up to my previous role as a Senior Security Data Scientist, I honed my skills in areas such as malware delivery and botnet operations, threat intelligence, system intrusions, and vulnerability management. As a technically proficient Python developer, adept at working with SQL and NoSQL technologies and implementing and productising data, machine learning (ML) and AI, I have consistently strived for excellence in my work.

In my current capacity as Data Intelligence Team Lead, I have embarked on a new chapter of leadership and innovation. I am overseeing the execution of AI-driven research and development initiatives, guiding them from conceptualisation to operationalisation. My responsibilities extend across research, product, development, architecture, infrastructure, operations, and of course, team management functions.

Throughout my career, I have maintained a relentless drive, an adaptive mindset, and a collaborative spirit. My passion lies in solving complex problems with intuitive solutions, where my capacity to communicate complex concepts effectively to diverse audiences has been a hallmark of my approach.

PROFESSIONAL EXPERIENCE

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| Glasswall , London, UK
Data Intelligence Team Lead | Mar 2022 – Present |
| Assumed the role of Manager for a newly established team, specializing in data, AI, and threat intelligence. Currently overseeing the execution of the full spectrum of AI-driven R&D activities, including the management of an international patent. Formulated and executed the product roadmap, playing a leading role in R&D efforts, and architecting the product, MLOps, and DataOps infrastructure. Other responsibilities include liaising with diverse internal and external stakeholders, fostering collaborative relationships, leveraging cross-organisational partnerships to accomplish strategic commercial objectives, and recruiting and assessing top engineering talent. | |
| Senior Security Data Scientist | Jan 2022 – Mar 2022 |
| Took charge of the comprehensive automation of the Threat Intelligence service and quickly stepped into a leadership position within a cross-organisational research project with a primary focus on AI. | |
| Snyk , London, UK
Security Data Analyst | Oct 2020 – Jan 2022 |
| Security R&D group. Maintained and expanded Snyk's vast security database by triaging open source vulnerabilities, disclosures, and proof-of-concept exploits; working with big data; developing automated pipelines; and conducting robust research. Other responsibilities: project management, process management, interviewing, and training. | |
| Spherical Defence Labs , London, UK
Research Engineer (Security) | Nov 2018 – Jan 2020 |
| Collaborated with a team of ML engineers to design and deliver an API security product utilising deep learning. Contributions included research, big (security) data analysis, software engineering, and QA of AI/ML models. | |
| University College London , London, UK
Doctoral Researcher | Sep 2016 – Jun 2021 |
| Conducted cutting-edge security research in partnership with Symantec Research Labs, Dawes Centre for Future Crime, and EPSRC. Produced a thesis and three publications as the first author, two of which have appeared at top, peer-reviewed security conferences. | |

BT Group Engineering Services, Ipswich, UK Jun 2014 – Sep 2014
Software Engineering Intern
Delivered a proof-of-concept Dark Web monitoring solution following a 3-month research project on web-scraping technologies for surveilling cybercrime on Tor. Worked with Java, AWS, and server technologies.

DS SolidWorks R&D, Cambridge, UK Jun 2012 – Sep 2012
Technical Support and Quality Assurance Engineering Intern

EDUCATION

University College London, London, UK Sep 2016 – Jun 2021
Ph.D. in Security Science (No Corrections)
Thesis: Measuring and disrupting malware distribution networks
Advisors: Prof. Gianluca Stringhini, Prof. Steven Murdoch
Research areas: Malware, internet measurements, cybercrime prevention, machine learning applications to cybersecurity.

University College London, London, UK Sep 2015 – Sep 2016
MRes Security Science (Distinction)
Thesis: Studying malware distribution networks.

University of Cambridge, Cambridge, UK Oct 2014 – Jul 2015
MEng Information and Computer Engineering (Distinction)
Thesis: IDS dictionary performance evaluator.

University of Cambridge, Cambridge, UK Oct 2011 – Jul 2014
BA (Hons.) Information and Computer Engineering (1st Class)

SKILLS

Programming: Python • SQL • NoSQL • Bash • JavaScript • HTML • CSS • PHP • Various languages (code analysis)
Experience with: Artificial intelligence and Machine learning • Deep learning • Large language models (LLMs) • Large-scale data analysis and data mining • Cybersecurity • Malware • Data visualisation • Network analysis • Statistical modelling • Software development • Security operations • Static analysis • Project management • Process management • Intellectual property management • Team management • Scrum • Recruiting • Public speaking
Tech stacks: AWS • GCP • Azure • Google BigQuery • Azure Machine Learning

RESEARCH PROJECTS

Malware Delivery Networks Sep 2016 – Sep 2020
Symantec Research Labs
Data-driven analyses to measure, predict, and disrupt malware delivery networks and botnets.

Cybercrime, Place, and the Internet Feb 2018 – Jul 2018
Dawes Centre for Future Crime at UCL
Bridging information security and environmental criminology research to better mitigate cybercrime.

PUBLICATIONS

4. **Colin C. Ife**. Measuring and Disrupting Malware Distribution Networks: An Interdisciplinary Approach. UCL (University College London), 2021.
3. **Colin C. Ife**, Yun Shen, Steven J. Murdoch, and Gianluca Stringhini. Marked for Disruption: Tracing the Evolution of Malware Delivery Operations Targeted for Takedown. In 24th International Symposium on Research in Attacks, Intrusions and Defenses (RAID '21), 2021.
2. **Colin C. Ife**, Toby Davies, Gianluca Stringhini, and Steven J. Murdoch. Bridging Information Security and Environmental Criminology Research to Better Mitigate Cybercrime. On ArXiv, 2019.
1. **Colin C. Ife**, Yun Shen, Steven J. Murdoch, and Gianluca Stringhini. Waves of Malice: A Longitudinal Measurement of the Malicious File Delivery Ecosystem on the Web. In Proceedings of ACM Asia Conference on Computer and Communications Security (AsiaCCS), 2019.

REFERENCES

Available on request.