Floe Foxon *Scientist·Analyst·Programmer*

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EXPERIENCE

Scientist and Data Analyst Statistician	Pinney Associates, Inc.	2024–Present 2020–2024
Research Scholar	Sanford Research	2019
Python Programming Tutor	CodeX, Enactus Nottingham	2018

EDUCATION

MSc Data Science (Statistics) — University of Leeds — 2024–2025
Courses: Programming for Data Science
Statistical Computing
Bayesian Statistics
Machine Learning

GCert Artificial Intelligence and Machine Learning — University of Texas at Austin — 2026 (Exp)
Courses: AI in Astrophysics
Machine Learning
Deep Learning

BSc (Hons) Physics with Astronomy — University of Nottingham — 2017–2020
Courses: Computing for Physical Science
Mathematics for Physics
Scientific Computing

General Certificate of Education Advanced Level — Bishop Vesey's Grammar School — 2015–2017
Subjects: Computer Science
Mathematics
Physics

PROFESSIONAL DEVELOPMENT

Wolfram Summer School, Physics and Foundational Science Track	Wolfram Research, Inc.	2025
Professional Certificate Data Science	IBM	2020

SELECTED WORKS

Foxon, F. 2026. Tests for randomness on a typewritten key stream extracted with optical character recognition and classified with a convolutional neural network. Proceedings of the 9th International Conference on Historical Cryptology HistoCrypt 2026. *Under review.*

Foxon, F. 2025. Solar Cycles: Can They Be Predicted? Research Notes of the American Astronomical Society. 9(2):40.

Foxon, F. 2025. Mining Pockets of Computational Reducibility with AI: Transformer Models of Graph Rewriting Systems. Wolfram Community, Staff Picks.

Foxon, F. 2025. Machine Learning for Text Classification in Classical Cryptography. Proceedings of the 8th International Conference on Historical Cryptology HistoCrypt 2025. 60-64.

Foxon, F. 2024. Artificial Neural Network for Hoax Cryptogram Identification. Proceedings of the 7th International Conference on Historical Cryptology HistoCrypt 2024. 86-90.

SELECTED WORKS (CONTINUED)

Foxon, F. 2023. Can Bayesian Statistics Be Used to Analyze Phenomena in Folk Zoology? Journal of Scientific Exploration. 37(3):570–571.

Foxon, F. 2021. Evaluating Modern System Dynamics Software for Use in Astrophysical Simulations. Astronomy and Computing. 36:100486.

Foxon, F. 2021. Ammonoid Taxonomy with Supervised and Unsupervised Machine Learning Algorithms. PCI Paleontology.

AWARDS

Distinction Award	University of Leeds	2026
First Class Honours Award	University of Nottingham	2020
First Year Scholarship Award for Academic Achievement	University of Nottingham	2018

SKILLS

Programming	Python (scikit-learn, PyTorch, TensorFlow, pandas, Matplotlib), Jupyter Notebook, R, SQL, SAS, MATLAB, Java, Wolfram
Software	Microsoft Office 365/SharePoint, Google Workspace, Linux, Windows, GitHub, Tableau, Mathematica

ACADEMIC SERVICES

Peer Reviewer	Scientific Reports; PeerJ; Drug and Alcohol Dependence; Harm Reduction Journal; Internal and Emergency Medicine; Contributions to Tobacco & Nicotine Research; Addictive Behaviors; SSM - Qualitative Research in Health; Nicotine & Tobacco Research

RESEARCH INTERESTS

I am passionate about all sciences and mathematics and my personal goal is to solve complicated problems. I look forward to working on innovative scientific and technical projects that meet cost and time budgets. In particular, I am interested in applications of machine learning and modelling techniques to novel data.

SELECTED MEDIA APPEARANCES

Photonics Focus ◇ Science ◇ New Scientist ◇ Retraction Watch ◇ Popular Mechanics