Floe Foxon *Scientist·Analyst·Programmer*

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EXPERIENCE

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

EDUCATION

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

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

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

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

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