Dr Jordan Hembrow

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EDUCATION

2018–2023	PhD Physics, University of Exeter
2014–2018	MPhys Physics (First Class Honours), University of Exeter.
2012–2014	A Level: Physics (A*), Maths (A*), Biology (A*), Chemistry (A)

EXPERIENCE

2023 - Now **Software Engineer**, Numatic. Designing control, navigation and sensor integration software for the "Autonomous project". Currently under an NDA in the R&D team.

- 2018-2023 **Doctoral Candidate Research Assistant**, University of Exeter, Joint theoreticalexperimental exploration of plant pathology. Mathematical modelling in *MATLAB* and *C++*. Use of model fitting and model predictions to inform experimental design, accept or reject hypotheses and for grant proposals. Complex statistical analyses of large and varied datasets using *R* (*plyr*, *dplyr*) and *Python* (*pandas*, *numpy*, *scikit*). Design of opensource, novel image analysis algorithms in *MATLAB*. Data visualisation (*Tableau*, *gplot2*), and academic report writing (*LaTeX*). Collaborative research, requiring teamwork and leadership skills, time-management, delegation, and cultivating a respectful working environment.
- 2021 **Data Scientist**, Meteorological Office. Lead researcher on a collaborative project investigating future global fire projections. Implemented pipelines using **Python** and **Bash** scripting to pull regularly update dataset, cleaning and reorganising data ready for analysis. Data manipulation and extraction (**sci-tools, numpy, scipi**) as well as plotting trends and predictions (**matplotlib**) in **Python**. Clearly presented findings with SMT through strong written and oral communication skills, both online and in person.
- 2017 **Research Assistant**, University of Exeter, *Design and development of a digital phantom breast*. Concept testing and parameter analysis in *C++* and blender. Integration and testing with novel Raman scattering simulation software to explore parameter spaces.

ADDITIONAL SKILLS

Programming and Analysis:

C, C++, MATLAB (Image analysis toolbox, simulations, and plotting), R (plyr, dplyr, rstatix, ggplot2), Python (numpy, pandas, scikit, scitools, matplotlib, OpenCV), Bash, Git and GitHub, Machine Learning in Python (PyTorch, OpenCV). 2D and 3D CAD and CAM. Frequent Linux and MacOS use.

Data Management:

Server hosting (Unraid, Nextcloud, Jellyfin media libraries), version control (Git, GitHub), organised logs of data storage (Excel, raw text, JSON).

HOBBIES AND INTERESTS

Climbing (lead and bouldering), Online Gaming (mainly teamwork-based games, MMO and tactical, theory crafting), Motocross, Paddleboarding, Hiking, 3D Printing, 3D Design, DIY and Server Hosting, Electronics (I want to learn about PCB design and manufacturing)