Dr. Angela M.J. MORTIER

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I am switching my career into software engineering after 12 years experience writing software for academic science research, and following a career break to raise our family. I have delivered software solutions in large multinational astrophysics team projects and published in academic journals with those teams. This involved mathematical and statistical analysis, including modelling large data sets in proprietary programming language IDL, creating novel solutions through strong problem-solving skills.

Career Switch Experience

2023 16 weeks	**DfE Skills Bootcamp HyperionDev** in Software Engineering See HyperionDev portfolio covered python, OOP design, HTML, CSS, SQL, RESTful APIs, defensive programming, TDD.
2015-2023	Moved for partner's work. Community work while carrying out emissions-reducing complete renovation of our 1960s family home.

Professional Experience

Academic and software developer for astrophysical research projects. Author on 47 refereed publications between 2004-13 with combined 3,985 citations as part of multinational teams, experienced at presenting results to a range of audiences.

2012-2014	**University of Nottingham**, UK. *Visiting researcher.* Continued work with Imperial College. Also taught undergraduate physics experiment classes and research projects, motivated undergraduate students and postgraduate demonstrators to develop independent working skills.
2009-2012	**Imperial College London**, UK. *Postdoctoral Research Associate in extragalactic astronomy and cosmology.* Part of multinational teams publishing research on starformation in galaxies using data from Herschel Space Observatory. Mathmatical modelling and computational simulation of starformation in galaxies. Python programming course.
2006-2009	**Institute for Astronomy, Royal Observatory Edinburgh**, UK. *Postdoctoral Research Associate in extragalactic astronomy and cosmology.* Developed IDL software to analyse and simuluate large volumes of data from multiple telescopes incl. Subaru (optical/near-infrared), James Clerk Maxwell (far-infrared/ submillimeter), Hubble Space (optical/near-infrared), x-ray and radio-wavelength telescope arrays.

Education

2002-2006	**University Of Kent**, Canterbury, UK. Ph.D. in Astrophysics. *"Tracing Dust-Enshrouded Star Formation: Observations of high and low redshift galaxies at sub-millimetre wavelengths."* Delivered a data processing full pipeline in IDL.
1998-2002	**University of Cambridge**, Cambridge, UK. Natural Sciences B.A. M.Sci 2:1 Physics
1998-2001	**Tnfour Computer Systems Ltd,** (Microsoft partner) London UK. Holiday work. Visual Basic and SQL database products for clients such as TfL.

Community

2014-2023	·Primary School governor for two schools incl. headteacher recruitment, finance, strategy. ·Parent-Teacher Association chair, relaunch/restructuring & financial recovery post-COVID. ·STEM ambassador in local primary schools and youth groups.

Key Skills

- **programming languages:**
- python
- interactive data language IDL
- matlab
- fortran
- visual basic
- **command line & shell scripting**
- windows
- linux/unix

Strengths

Maths and statistics
Modelling
Problem-solving
Big data
Delivery to deadlines
Working in large teams
Independent working
Attention to detail
Communication
  presentations
  public speaking
  writing & publishing