Matthew Gwynne

Curriculum Vitae

Flat 26 Ashburne House
Oxford Place
Manchester, M14 5SF
07454 860323
thegwynne@gmail.com

Education

2015–present Postgraduate Studies in Mathematics, *University of Manchester* (not completed)

Working with an engineering company developing software to analyze expected vibration in buildings.

2010–2014 Masters of Mathematics, *University of York*

First Class Honours

Masters Dissertation: An Introduction to Bosonic String Theory

Modules focusing on applied mathematics and mathematical physics

2008–2010 A Levels, *Bishops' Bluecoat High School Sixth Form*

A* Mathematics, A* Further Mathematics, A Chemistry, A Physics

2003–2008 GCSEs, *Bishops' Bluecoat High School*

12 A*-C

Work Experience

2015–present **Industrial Sponsor for PhD programme**, *Arup*, Manchester.

- Worked with Arup's Oasys software group members in Manchester and London,
- Met with engineers from different disciplines to learn how they use vibration analysis, and discuss what improvements would be most valuable to them,
- Constructed fully documented code to solve the Quadratic Eigenvalue Problem in `MATLAB`,
- The code I developed is likely to be integrated into their structural analysis package later in the year.

Summer 2013 **Summer Placement**, *Met Office*, Exeter.

- Developed a python module to compute *Rossby Wave Source (RWS)*, a parameter of climate data, from meteorological datasets,
- Combined techniques from existing IDL code with novel algorithms to improve speed and utility,
- Presented mid-projects results at a group meeting.

Summer 2009 **Nuffield Bursary Project**, *QUASAR Group*, Cockroft Institute.

- Completed four week project using finite element modelling software
- Shortlisted for an award at scheme poster presentation

Training, Skills and Courses

Computing

- Scientific Computing MSC module at the University of Manchester, which included writing code in C++
- Introduction to Python, and Introduction to IDL courses at the Met Office
- Research in the last 3 years has primarily involved coding in `MATLAB`, as well as some work in Python and C++.
- Work at the Met Office was mostly conducted using python, as well as reading legacy IDL code.
- Personal coding projects are mostly completed in python, inluding election forecasting models, although for projects involving 3D graphics I tend to use C# with the XNA package.

Other

2015–2017 Secretary of Manchester SIAM-IMA Student Chapter

This was a postgraduate student society sponsored by the Society for Industrial and Applied Mathematics (SIAM) and the Institude of Mathematics and its Applications (IMA) to run events at the University of Manchester,

As secretary, my responsibilities included communications between members and committee, helping to plan and run events, and providing details of our operations to our sponsors,

January 2017 Presented a poster presentation at the SIAM UKIE Annual Meeting at the University of Strathclyde,

September 2016 Presented a talk at the 5th IMA Conference on Numerical Linear Algebra and Optimisation at the University of Birmingham,

June 2016 Completed the Graduate Teaching Assistant Training one day course at the University of Manchester.

Voluntary and Casual Work

2015–present Holy Trinity Platt Church. Active volunteer in a number of areas, including in technical and support areas such as:

- Running the projection desk for services and meetings,
- Sound engineer for services and meetings,
- Events, Hospitality and Catering (including head caterer role),
- Wedding Verger (Paid casual work) Caretaker for the church on the day of the wedding,
- Working with International Students to help them develop their English language skills, and help them learn about British culture.

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Vicky MacMillan
Traveller's Tales Games
Canute Court
Toft Road
Knutsford
Cheshire
WA16 0NL

June 8, 2018

Dear Ms MacMillan,

I am writing to apply for the Junior Render Tech Programmer job advertised on the TT games website. I have recently come to the end of my studies in mathematics, and I'm now looking to begin a career in software engineering.

During my studies, both undergraduate and postgraduate, the aspects of my courses and research that I have found most rewarding have been the programming elements. Through my studies, as well as personal projects, I have developed skills in a number of programming languages, as well as a good understanding of many general programming techniques and practices. While I have relatively little current experience in C++ (I completed an MSC course in C++ in late 2016, but haven't used it much since), I am always keen to develop my skills in more languages. As well as this, much of my programming experience is in Python and C#, so I am familiar with object-oriented programming.

I am particularly keen to work in games technology, as I have been a keen gamer since I was a teenager, and many of my personal projects when I started learning how to code involved game development. As well as this I understand that many of the techniques from numerical linear algebra that I have been studying at the University of Manchester are applicable to 3d rendering, and I would be interested to see how they are applied outside of academic circles.

Please find my attached CV, references are available on request. I hope to hear from you soon.

Yours faithfully,

Matthew Gwynne

Attached: curriculum vitæ