

Declan Morris

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Personal Statement

I am a Software engineer with a passion for learning both at work and in my personal time. I have a background in chemistry as a University of York chemistry graduate (MChem – 2.1). As a self educated developer I have taught myself the industry and know how important autodidacticism is to an industry which is this fast paced with new technologies and changing ways of working.

Work Experience

Drax Group

Software Engineer

Selby, England

2019 – 2022

- Wrote, deployed, configured and maintained many mircoservices key to business continuity. Ensured all were written following best practices.
- Wrote and deployed an Azure function API and all associated cloud artifacts via IAC including PAAS MSSQL, VNET, VM configured with ansible,
- Upgraded plant metering system and all dependant services, databases, and queries. Ensured system was resilient to pull data every minute 24/7/365
- Created API's to securely integrate external services securely with HR data
- Wrote CI/CD pipelines as standard for every project and led the team into adoption of YAML CD pipelines

StarCompliance

Software Developer

York, England

2018 – 2019

- Used Powershell to automate the broker release process saving a week for every broker feed release
- Fixed large numbers of C# and MS SQL server bugs
- Created SSIS packages to integrate broker dealer data into the Star product
- Analysed and tracked down SQL performance issues using pro filer, optimised SQL utilising management studio execution plans and by evaluating sql generation code
- Made improvements to the Star software deploy scripts that are used by every developer at Star to deploy and update sites on our servers
- Created a deployment tool for deploying hotfixes to every Star hosted site 200+ and upgrade them to the latest version, bringing clients critical security, performance and business logic changes. This saved our internal teams over 90 hours a month and I was nominated and awarded an internal award for the initiative to do this work.
- Found several critical software vulnerabilities in the Star application and patched these accordingly.
- Addressed vulnerabilities raised in penetration test reports and used Kali Linux and it's tool to assess software vulnerabilities
- Worked with our QA to ensure functionality was correctly tested and the test scenarios were accurate

StarCompliance

Business Analyst

York, England

2016 – 2018

Managed product enhancements to ensure that features are prioritised and achievable within product sprints. Created a new workflow which involved meeting with chief business officers to get an understanding of their needs. A Perl script I wrote would automatically scan over all product backlog enhancements (~ 800) and based on a criteria set assign each a score so that the chief business officers could look over only the top items identified. I designed, documented and delivered software specifications including detailed requirements and state diagrams. I collaborated with developers, quality assurance, and client teams to gather research and functionality requirements. I assisted the technical project manager in the transition from Waterfall to a more agile development methodology.

Institute of Chemistry, Chinese Academy of Sciences

PhD Candidate

Beijing, China

2014 – 2015

Lived and studied in Beijing for just over one year. Explored a variety anti-icing techniques with a focus on graphene and its derivatives being used to affect ice growth in solution. Studying in China also gave me the opportunity study Chinese in my free time, I thus reached a conversational level. I decided to leave for personal reasons, however it was still a valuable experience that allowed me to improve my scientific and language skills.

DSM

Intern Associate Scientist

Geleen, The Netherlands

2013 – 2014

As an MChem student I decided to undertake a placement year in industry at DSM. The project was to develop a kinetic model for the decomposition of cyclohexyl hydroperoxide. This placement gave me valuable experience in working within the chemical industry and prepared me for further work in a similar setting.

Personal Projects

Personal Website: To better understand the MVC model and the full process of creating and deploying a site to my own infrastructure I built a personal website. The website runs using the Django framework in Python. In addition to this coding exposure, I also gained valuable experience in other areas e.g.

- Configuration of webserver using NGINX and Unicorn
- Bootstrap framework

Perl Webscraper: Wrote a basic web scraper to spider across a website and download key information and stored it in a MySQL database.

Hospital Bedlam Game: A group of friends and I joined global game jam to build a basic JS puzzle game.

Education

Department of Chemistry, The University of York

York, England

Master of Chemistry with a Year in Industry, 2:1 Honours Degree

2010 – 2014

Cardinal Newman College

Preston, England

2008 – 2010

A Level

Chemistry	A
Maths	A
Biology	B

As Level

Computing	C
General Studies	C

Languages

English: Fluent

Mother tongue

Mandarin Chinese: Conversational

HSK 5 Certification completed in 2017

.Net: Intermediate

C#: Intermediate

MS SQL Server: Intermediate

Terraform: Basic/Intermediate

Ansible: Basic/Intermediate

Python: Basic

References

References are available on request