

# Bernard James Mason

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## Profile

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I am a junior software developer with a scientific background in atmospheric processes. I have a strong work ethic and am keen to expand my skills and knowledge. I started programming during my PhD, in 2006, and continued building software for data analysis and custom instrument operation during my time as a scientific researcher. I started full time software development in September of 2016 working at Gnupp Ltd where I have been constantly challenged to improve my general programming and development knowledge. I am self reliant and can take the initiative but would prefer to work in a cohesive team environment.

## Skills and Expertise

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Programs and frameworks I am familiar with include, but are not limited to :

- **.Net** : Visual Studio, Resharper, ASP.NET MVC 5, Entity Framework, Ninject, AutoMapper, Nuget, Umbraco, MySql.Data, WinForms
- **Sql** : MySql, MSSQL - tables, views, stored procedures
- **Source Control** : Git
- **Linux** : Antergos, GNOME, bash
- **Additional** : HTML, Javascript, LabVIEW, Igor, Python, Matlab, Scilab

## Personal and Hobbies

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In my spare time I am an avid cook and foodie. I enjoy running frequently and take part in competitive races. I also have a keen interest in strategic board and card games, in particular, Magic the Gathering.

## Work and Education

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### **Software Developer at GNUPP Ltd (08/2016 - present)**

Oxford, UK

**Overview:** Whilst working at Gnupp I have gained a good working knowledge base of the .NET framework and the tools used to develop websites, APIs, databases and Windows applications. Since starting I have built a blog website from the ground up, (in MVC 5), built a basic HTTP web server from raw socket

connections and solved multiple other smaller coding challenges I have been set. The current project (since May 2017) is building a Magic the Gathering deck building application using the .NET framework. I have built data gathering software, designed the database (MySQL) and wrote an interfacing data layer, written in C#. I have prototyped this against a WinForms application, and am currently in the process of building application services and an API to be called by any desired party.

**Postdoctoral Researcher at National Oceanic and Atmospheric Association (08/2014 – 08/2016)**

Chemical Sciences Division, Boulder, Colorado

**Overview:** Analysis of historic flight data to assess the instrument performance against other commonly used aerosol absorption measurements. Combined assessment of multi-instrument accuracy and precision. Development an operation of a combined cavity ring-down/photo-acoustic spectrometers for extinction and absorption measurements of ambient aerosol optical properties. Characterizing instrument performance in the laboratory and under ground level deployment conditions.

**Ph.D. in Aerosol Optical Properties (01/2011 – 06/2014)**

University of Bristol, Aerosol Dynamics Group, Professor Jonathan Reid Laboratory

**Overview:** Cavity ring down spectroscopy for determining light-scattering properties of single particles and aerosol ensembles. Assessing fundamental optical properties of common atmospheric analogues for use in atmospheric radiative forcing models.

**M.Sci. in Chemistry (09/2007 – 07/2010)**

University of Bristol, Bristol, United Kingdom

**Overview:** Final year research project: synthesized heterogeneous palladium and platinum catalyst analogues for synthesis of methyl methacrylate, a monomer used in the creation of the plastic, polymethyl methacrylate.

**Publications:** A list of scientific publications is available on request.