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Stuart Herbert
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Dear Stuart,

I am applying for the role of Internal Job Engineer as described through our recent conversations.

Having published and presented a paper at an IEEE conference and earning the Portaltech Reply Bursary in Computer Science for best performance in the penultimate year of the Software Engineering MEng course, I am a capable developer with experience in developing in-house tools and contributing to open source projects.

I enjoy promoting open source software by helping to organise and run events for the West Wales Linux Users Group, set up and moderate talks at FOSDEM and submit bug reports, produce art for and contribute to several open source projects.

Examples of my work are available on GitHub (`https://github.com/SoftlySplinter/`).

I have experience using Python and have programmed using the Flask framework and several libraries available on the Python packaging index.

I am experienced using Java and have studied the content for version 7 certification. I have used the OSGi framework to develop highly-modular applications and Eclipse plug-ins.

I have developed a few small C projects, including an interpreter for an esoteric programming language. I have created a simple system using Java, C and C++ which used POSIX file locking to handle events between three programs.

I have studied the basics of Scala, Ruby with the Rails framework and Node.js, and have created a few simple applications such as a REST client for a Ruby on Rails server, simple set manipulation in Scala and interconnection between two Node.js socket servers.

I am already achieving consistently high marks from the coursework submitted for masters level modules, as well as having achieved high marks in my final project, which led to the aforementioned paper.

The project focused on dating the work of the Welsh artist Kyffin Williams using catalogue photographs with known dates. This involved using image processing techniques to analyse pictures and classify a new example based on the existing work.

I presented this at both the 8th International Symposium on Signal and Image Processing Analysis conference and at the BSc Show and Tell.

In my most recent job as Advisor at Aberystwyth University, one of my responsibilities is to help students in

lower years with their programming assignments. This is often a matter of debugging their code and figuring out how it fits together, to then work out where their error is occurring and how it might be fixed without large changes being made.

In my role at IBM I was responsible for creating and maintaining in-house tools and platforms, which aided the jobs of both members of the CICS L3 Service team and members of CICS management, through the automated gathering of statistics and the improvement or automation of regularly performed tasks.

During this time at IBM I worked closely with a CentOS Server running DB2 and a WebSphere Application Server, which ran some of the in-house tools. I have also managed a personal VPS which runs Nginx to provide web-based content. I have previously hosted Flask-based Python applications using the WSGI module.

A main role in my job at IBM was to automate a lot of the end-to-end process used to deliver fix packs of CICS Eclipse-based products. I authored a system which used information from servers to package fix packs in a way which was used to deliver them to update servers. This system allowed these elements to be scripted in a simple language so the developers could further automate this process.

How certain parameters were used and how they would affect the delivery of the fix packs involved digging into a lot of the external APIs and understanding how they would work together with one another.

I have led a team of IBMers in organising and running a Java Masterclass at Swanmore School of Technology, often presenting the session content myself. I ran other Java teaching sessions for IBMers with different programming backgrounds.

I organised and ran the inductions for the new IBM industrial year students as part of a team of three. This involved timetabling the inductions, contacting speakers and setting up all laptops for these students, ensuring they had the correct software for their job role. The lab manager for IBM Hursley thanked us for the quality of the inductions.

Developed a game based on the travelling salesman problem which would introduce school children to the concepts of mathematics and artificial agents for the Blue Fusion event held at IBM Hursley. During this process I often had to control the quality of the code being committed and fix problems others encountered. This game was chosen to be used as the grand finale for each day of the event, so it was constantly checked by the organisers to ensure it would work.

I have worked as part of an online group of artists improving the art for the open source game *Battle for Wesnoth*. I have also worked as part of a small group contributing to the open source project *pytentd*. For *pytentd* I set up and maintained Travis integration with the github repository to test against different environments.

Thank you for taking the time to consider my application.

Yours sincerely,

Alexander D Brown