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Stellar Science
6565 Americas Parkway NE
Suite 725
Albuquerque, NM 87110

Dear Sir or Madam,

Please consider my application for Scientific and Engineering Software Developer. I am an exceptionally good programmer when working alone or in small teams. I have worked on small medium and large projects in industry and academia. I have also contributed to open software projects, including the Linux kernel. I have used many programming languages and I can quickly learn new ones whenever necessary.

My strongest language is C++. I have developed C++ object libraries and templates. My philosphy is to use what you can from the libraries that are available, and write anything else that you need. When you need to design an object, try to make it re-usable.

For the past 10 years, I have been a professor at Texas Tech University, where I have been conducting and directing research in robotics and artificial intelligence. This research includes optimal control, planning and decision making under uncertainty, computer vision, neural networks, Markov decision processes, and similar technologies and theoretical models.

Your job opening lists several areas where experience is desired. Here is how I compare on your list:

Image processing, imagery analysis, or computer vision: I done projects in image processing and machine vision. I have directed research in recognizing license plates.

Cross-platform development with C++: I prefer to develop code on Solaris, HPUX, or Linux and enforce strict POSIX compliance. For non-GUI code, I have never had any portability issues with people running my code under Windows. With Qt or other libraries, even GUI code is easy to make cross platform.

3D graphics using OpenInventor and/or OpenGL: I wrote an application using the GL that was licensed to the US Coast Guard. OpenGL is just the GL enhanced for portability.

Knowledge of satellites, space, orbital mechanics: From Physics class, I recall that it reduces to solving systems of differential equations.

Computer Aided Design (CAD): I have used Mentor Graphics, AutoCAD, OrCAD, and a couple of others. I wrote a small circuit board autorouter for fun, using the layout and netlist provided by OrCAD.

Linux, Sun, SGI, Windows: I have used and programmed all four of those, in exactly that order.

Familiary with Microsoft Visual Studio: I have tried to use it, but found that it really just gets in my way. I am much very fast with Emacs and make.

Python: This is the introductory programming language at Texas Tech. As such, I can use it reasonably well.

Java: I have not used it in several years, but it would not take long to become proficient.

Matlab: I have used Matlab to write quick prototypes for proof-of-concept. I have also used it for plotting and graphing results.

MySQL or other relational databases: I have used several SQL databases for back-end data storage, including MySQL, Oracle, and Postgress.

I would appreciate the opportunity to speak with you to discuss the value that my strengths and experience can bring to Stellar Scient. I believe that my experience is a very good match to your needs.

Best Regards,

Larry D. Pyeatt, PhD