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Ben Brown
Rochester Institute of Technology

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Stephanie Shiu
sshiu@lanl.gov
Staff Operations Manager
Los Alamos National Laboratory

Dear Stephanie,

My name is Ben Brown, and I am a graduating 5th year electrical engineering student at Rochester Institute of Technology. I'm seeking employment as a Space Data Processing Post-Baccalaureate Student at Los Alamos National Laboratory. I believe that I have several specific attributes that would result in particularly synergistic employment in this position, and I would like to outline them below, in order of listing on the job application:

Minimum Requirements:

- **Programming Experience:** I have significant experience in both Python and C/C++ across both academic and diverse industry settings.
- **Operating System Experience:** I have experience developing on windows, windows-based linux systems (Cygwin, WSL), and with remote development via SSH on an Ubuntu research computing server.
- **Version Control System Experience:** I use git and github for as many projects as possible, to secure backups and increase portability between devices.
- **Collaboration/Teaming:** Currently I am Project Lead for my Senior Design team, and have worked across many small teams from 2 people to upwards of 7 in research and development settings.
- **Communication:** I strive for quality writing and have many opportunities to practice while writing up extensive lab reports for various engineering classes.
- **Education/Experience:** I plan to graduate this May with a BS in Electrical Engineering and an immersion in Applied Statistics with a GPA greater than 3.0.

Desired Qualifications:

- **Satellite Senors and Programs** Throughout my curriculum and co-op experiences, I have had the opportunity to work across many diverse fields and apply concepts of sensor application from both hardware implementation and data processing sides. Through my senior design project, I have learned about integrating and taking measurements from a specialized SWIR sensor that uses a MEMS light filter and a photodiode to detect magnitude of light across a certain wavelength. I've also worked with complex real-time datasets in the context of titanium manufacturing. This has equipped me with the skills required to tackle complex, real-world datasets, like one that may come from a satellite using tools in python such as pandas, numpy, scikit-learn and pytorch.
- **Scientific Algorithm Development** During all of my work experiences listed, I had the opportunity to use Python and C/C++ to develop scientific programs to
- **Data Processing and Engineering** Familiarity with data processing pipelines and common data engineering and scientific packages
- **Unit and Integration Testing** Experience developing formalized unit and/or integration test software
- **Debugging Tools** Familiarity with debugging tools such as the GNU Debugger (GDB).
- **HDF5 and Similar Data Formats** Familiarity with Hierarchical Data Format 5 (HDF5) or other similar file formats.

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closing signoff

Sincerely,

Ben Brown