Ryan Glusic

Kenosha, Wisconsin

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Education

University of Wisconsin - Parkside   **2021**
Bachelor of Science in Physics and Mathematics   *Kenosha, Wisconsin*

Experience

Undergraduate Research Assistant   **Jan 2020 – Ongoing**
University of Wisconsin - Parkside   *Kenosha, Wisconsin*
- System administration of a computational cluster with 20 nodes
- Integrated a job scheduler (OpenPBS) for controlling execution of MPI processes across an arbitrary amount of nodes on the cluster
- Wrote a Python interface using AiiDA to help manage the execution of code on the server, including controlling the number of MPI procs of several physics based phonon calculations across the job scheduler
- Currently developing a system to visualize the active node workload and displaying it through an NGINX web server
- Presented research at state and national level conferences such as WiSys and APS

Operations Associate Lead   **Sep 2019 – May 2021**
University of Wisconsin - Parkside   *Kenosha, Wisconsin*
- Controlled equipment for serveral events including: Running movies in Cinema, setting up lecterns to interact with our speaker system and projectors, managed sound system and lighting for weddings
- Customer service during events: ie, more microphones, speakers, lighting control assistance
- Leadership role over other Operations Associates: scheduled others, training of new staff

Supplemental Instruction Leader   **Jan 2020 – May 2021**
University of Wisconsin - Parkside   *Kenosha, Wisconsin*
- Instructed Python and MATLAB for a scientific programming course
- Focused on teaching new students, whom of which have never programmed before, assisting a professor

Projects

AiiDA Wrapper Library | *Python, mpi, linux*   **Jan 2020 - Ongoing**
- Developed a library around the AiiDA framework to control the execution of several physics programs across a computational cluster
- Designed the library to be a simple to use interface around the AiiDA library, to ease the control of batch execution of phonon calculations

Rust Path Tracer | *Rust, linux/windows/mac*   **Jan 2018 - Ongoing**
- Created an application in the Rust Programming Language to create a Physically Based Renderer through path tracing per pixel
- Designed the program to parse a json file format to setup a scene to render
- Developing the program to integrate with MPI and be used over a computational cluster

Skills & Interests

Languages: Python, Rust, C/C++, HTML/CSS
Developer Tools: VS Code, GCC, LLVM: Clang, Jupyter, LaTeX
Technologies/Frameworks: Linux (Debian, CentOS, Arch), MacOS, Windows, GitHub, Replit, Raspberry Pi
Soft Skills: Team Work, Research, Leadership, Presenting, Problem Solving
Interests: System Administration, Research, Software Development, Team Building, Socializing

Extracurricular Activities

Society of Physics Students   **Sep 2019 – Present**
Inducted Member   *University of Wisconsin - Parkside*
- Inducted as a member of the Sigma Pi Sigma Honor Society run by American Institute of Physics

American Physical Society   **Sep 2020 – Present**
Member   *University of Wisconsin - Parkside*
- A registered member for the American Physical Society: an organization that hosts an annual national conference for research in physics